

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Application of:
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Vladislav OLCANSKI et al. : Group Art Unit: 2151
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Appln. No.: 09/996,475 :
: Examiner: Karen C. Tang
Filed: November 20, 2001 :
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For: PERFORMANCE OUTCOMES :
BENCHMARKING :

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Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL DECLARATION UNDER 37 C.F.R. § 1.131**

Sir:

I, Louis F. Rossiter, hereby declare that I am a co-applicant in the above-identified patent application and that I am also a co-inventor of the invention that is described and claimed in the above-identified patent application. I also hereby declare that prior to May 15, 2000, my co-inventors and I conceived of the invention that is described and claimed in the above-identified patent application as evidenced by the following:

1. Prior to May 15, 2000, my co-inventors and I conceived of the invention in the United States. At the time of the invention, I owed a duty of assignment of the invention to Chironet, LLC (hereinafter "Chironet").

2. Shortly after my co-inventors and I conceived of the invention, my co-inventors and/or I prepared a description of the invention for purposes of defining system requirements and for guiding hardware/software development of a system embodying the invention. A date redacted copy of the description of the invention (i.e., our invention disclosure) is attached hereto as Exhibit A.

3. A system embodying the invention as described in our invention disclosure was actively developed until completion of an initial version of the system. Proof of the active development of the system embodying the invention as described in our invention disclosure is provided herein as: (1) a letter agreement between Chironet and Social & Scientific Systems, Inc. (SSS), setting forth that SSS will provide advice on procuring hardware, software, and Internet connectivity; hypertext markup language (HTML) and graphics design services; computer programming; and ongoing technical support, all related to developing the system embodying the invention as described in our invention disclosure (see Exhibit B); (2) invoices from SSS to Chironet relating to the above-described agreement (see Exhibit C); (3) a marketing agreement between Surgical Outcomes (of which Chironet is an affiliate) and McKesson General Medical Corp. (McKesson), setting forth that McKesson will provide promotion and marketing services to Surgical Outcomes relating

to the system embodying the invention as described in our invention disclosure (see Exhibit D); and (4) a letter from Chironet to SSS requesting assistance in reviewing final documentation for the system embodying the invention as described in our invention disclosure (see Exhibit E).

4. Upon completion of the initial version of the system, details of the initial version of the system were provided by Chironet to outside patent attorneys for preparation of a provisional patent application encompassing the invention.

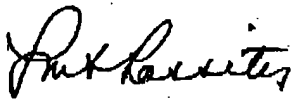
5. On November 21, 2000, the above-identified provisional patent application was filed. A copy of the filing receipt for this provisional patent application is attached hereto as Exhibit F.

6. Between November 21, 2000, and November 20, 2001, my co-inventors and/or I had several discussions regarding our invention disclosure and the provisional patent application with the outside patent attorneys, and provided additional supporting materials to the outside patent attorneys, all intended to assist the outside patent attorneys in converting the provisional patent application into a utility patent application encompassing the invention.

7. On November 20, 2001, the above-identified utility patent application was filed. A copy of the filing receipt for the application is attached hereto as Exhibit G.

I further hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DECLARANT:

  
\_\_\_\_\_  
Louis F. Rossiter

Date:

3/06/2006



Patent Application  
Attorney Docket No.: 58367.000003

**EXHIBIT A**



# **SOIX Report System User's Manual**

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## The structure of report folders on the SOIX private web site

The structure of report folders on the SOIX private web site is the following:

```
[centers]
|
|----[center_1]---|
|                  |
|                  |---[Quarter]-----|
|                  |                  |
|                  |                  |---[Proc_1]-----report_file_1.html
|                  |                  |                  |
|                  |                  |                  |--report_file_1.gif
|                  |                  |                  |--.....
|                  |                  |                  |--report_file_N.html
|                  |                  |                  |--report_file_N.gif
|                  |                  |
|                  |                  |--[.....]
|                  |                  |--[Proc_k]
|                  |                  |--[.....]
|                  |                  |--[Proc_2]
|                  |
|                  |---MM-DD-YYYY
|                  |
|                  |--index.html
|
|                  |--report_index_file_1.html
|                  |--.....
|                  |--report_index_file_N.html
|
|                  |--combo_report_file_1.html
|                  |--.....
|                  |--combo_report_file_H.html
|
|---[Month]
|
|---[MonthCumul]
|
|---[OLD]-----[Myyyy-mm]
|                  |
|                  |--[Myyyy-mmC]
|                  |
|                  |--[Qyyyy-qq]
|
|---[Download]
|
|---index.html
|
|---main-Old.html
|
|---Month_dump.mdb
|
|---MonthCumul_dump.mdb
|
|---Quarter_dump.mdb
|
|----[.....]
|----[center_k]
|----[.....]
|----[center_Y]
|
|----[group_1]---[center_1]
|                  |
|                  |--[.....]
|                  |--[center_k]
|                  |--[.....]
|                  |--[center_P]
|
|----[.....]
|----[group_k]
|----[.....]
|----[group_T]
```

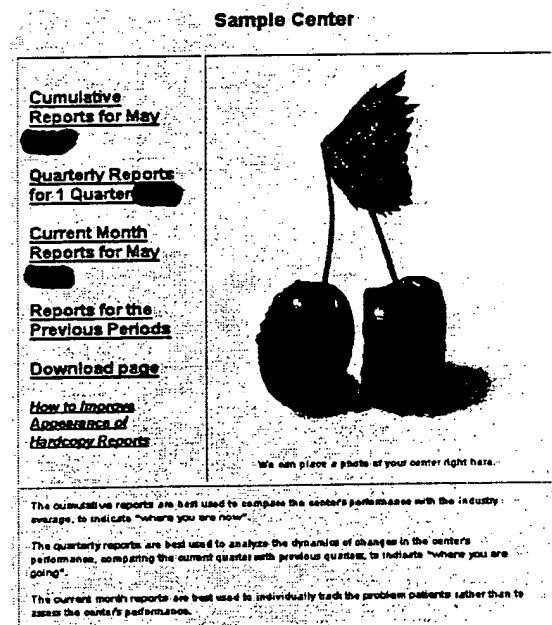


Fig. 2. Home page for Sample center.

Fig.1 The structure of report folders. (All names typed in italic font are used for the generic description. They don't correspond to any real names. Square brackets are used to distinguish folders and files)

The folder **[centers]** is located in the root directory of the SOIX private web server (current location of the root directory is "C:\SOIX\WebSites\SOIX\centers"). Folders **[center\_1]**, ..., **[center\_k]**, ..., **[center\_Y]** are centers report directories. The name of a center's directory is a three letter USERCODE of the center (Example: AAA,

AAB, MFA). Each center has its own home page – [center\_k]index.html file. In Fig.2 you can see an example of the home page.

Each center's folder has involved file structure. Let's consider this structure in more details.

Folders [Month], [Quarter] and [MonthCumul] are used to store "Current Month Report", "Quarterly Reports" and "Cumulative Reports", respectively.

[OLD] folder is used to store "Reports for the Previous Periods". Each folder inside [OLD] represents reports for a certain period. Folders for quarterly reports have [Qyyy-qq] names, where "yyy" is a year in four digit format and "qq" is a quarter number with a leading zero (Example: "Q00-03" – reports for third quarter of 00). Files for previous monthly reports are located in [Myyyy-mm] folders, and cumulative monthly reports are saved in [Myyyy-mmC] ones, where "yyy" is a year and "mm" is a month (Example: "M00-04" – monthly reports for April 00, "M00-03C" – cumulative monthly reports for March 00). "main-Old.html" file provides links to reports for the previous periods. You can see an example of this file in Fig. 3.

Folder [Download] is used to store center specific files, like "ftprun.run" or updates and patches for OMS program.

Microsoft Access database files (Month\_dump.mdb, MonthCumul\_dump.mdb and Quarter\_dump.mdb) contain procedure-level data calculated by the report system. These files store data for "Current Month Reports", "Cumulative Reports" and "Quarterly Reports" respectively. Almost all parts of the report system use these files – not the original Medical Record and Patient Interview patient-level tables.

[Month], [Quarter], [MonthCumul] and sub-folders of [OLD] folder contain reports for different periods but all of them have the same structure, so let us consider the [Quarter] folder only. All report pages can be divided into the two groups:

- 1) report pages that show information only for a specific procedure group (in current version of the report system these files include a chart and a table corresponding to this chart);
- 2) report pages that include information for all procedure groups on one page (in current version of the report system these files include tables only).

report\_index\_file\_1.html through report\_index\_file\_N.html are index files for reports that require separate page for each procedure group (first type of reports). These index files do not include any reports, they just provide access to report pages. For example, "ind\_index.html" files (see Fig. 4) contain links to pages where you can get the charts and tables with data for the "General Indicators" reports.

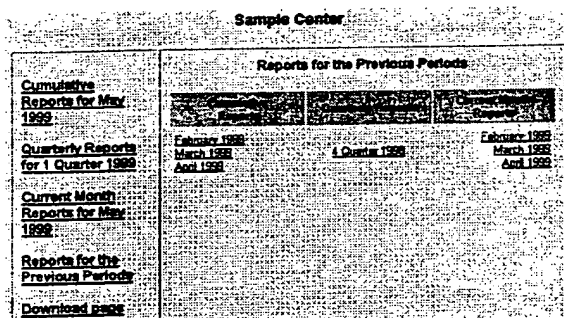


Fig. 3. Main page for "Reports for Previous Period".

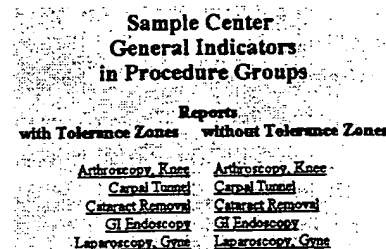


Fig. 4. Index file for General Indicators

At this moment the full list of index files is the following:

- |                                |  |
|--------------------------------|--|
| 1. Age_Distribution_index.html | Index file for "Age Distribution" reports;           |
| 2. anest_index.html            | Index file for "Complication by Anesthesia" reports; |
| 3. ind_index.html              | Index file for "General Indicators" reports;         |
| 4. payor_index.html            | Index file for "Complications by Payor" reports;     |

- |    |                      |   |
|----|----------------------|---|
| 5. | recovtime_index.html | Index file for "Recovery Time" reports; |
| 6. | surgtime_index.html  | Index file for "Surgery Time" reports.  |

*combo\_report\_file\_1.html* through *combo\_report\_file\_H.html* are report files for reports where data for all procedure groups are combined in one file. At this moment these files contain tables only and the list of such files is the following:

- |    |                      |  |
|----|----------------------|--|
| 1. | Executive_Table.html | "The Executive Benchmark Table" report tables; |
| 2. | DataTable.html       | "Data Tables" report tables.                   |

[**Month**], [**Quarter**] and [**MonthCumul**] folders contain a special file with the name in the MM-DD-YYYY format. The name of the file is the end date of the reports in the given folder. This file is used by the report system to determine the period of reports. Sub-folders in [**OLD**] folder do not have this file, because the period of reports can be easily determined using folder's name.

[**Proc\_1**], [**Proc\_2**], ..., [**Proc\_k**], ..., [**Proc\_Z**] folders represent different procedure groups for reports of the first type (separate pages for each procedure group). The names of these folders are derived from the names of corresponding procedure group by skipping all not alphanumeric characters, leaving "\_" and "-" symbols in unchanged form and changing all spaces to "\_" (Example: the folder for procedure group "D&C/Hysteroscopy" is "DCHysteroscopy", "ENT - T&A < 12" is "ENT\_-TA\_12"). Each report in these folders is represented by two files: *report\_file\_k.html* and *report\_file\_k.gif*. The HTML file includes a table and a chart in GIF format (Example: "Age Distribution" for procedure group "Carpal Tunnel" is represented by the files "Age\_Distribution2.html" and "Age\_Distribution2.gif" in the folder "CarpalTunnel").

[**group\_1**], ..., [**group\_k**], ..., [**group\_T**] are corporate group folders. They have the same structure as [**centers**] folder. The name of a corporate group folder is the three-letter USERCODE of the group. For the convenience, currently, corporate group usercodes begin with "ZAA", but there is no special limitations so any letters can be used.

## The structure of the report system

The previous chapter of the documentation described the reports themselves. In this chapter the report system and its relationships with report files will be described.

```
{SOIX_REPORT_SYSTEM}
+---[Data]
|   Soix.mdb
+---[archive]
|   yyyymmdd.zip
\---[backup]
|   \---[yyyymmdd]
|       +---[AAA]
|           MEDUP.DBF
|           PATUP.DBF
|       \---[XYZ]
|           MEDUP.DBF
|           PATUP.DBF
+---[INI]
|   Info.txt
|   report.ini
+---[Log]
|   Executive_Table.log
|   Comparison_table.log
|   DataTable.log
|   Data_calculator.log
|   Executive_Table_Paper_Reports.log
|   GrabFile.log
|   ProcDistrib.log
|   report.log
+---[LST]
|   Comparison_table.lst
|   Corporate_Members.lst
|   DataTableItems.lst
|   Executive_Table.lst
|   Indicators.lst
|   LogMessages.lst
|   ProcConv.lst
|   ProcDistrib.lst
|   Sites.lst
|   Stage1.lst
|   Stage2.lst
|   \---[Templates]
|       Sample-Sites.lst
|       Full_List_Sites.lst
+---[Programs]
|   +---[Paper_Reports]
|       Executive_Table_Paper_Reports.exe
|       Comparison_table.exe
|   \---[Web_Reports]
|       APPENDER.mdb
|       Chart_Generator.exe
|       Executive_Table.exe
|       DataTable_Creator.exe
|       Data_Calculator.exe
|       ProcDistrib_Creator.exe
\---[Template]
|   Age_Distribution2.html
|   Anest.html
|   Anest2.html
|   ind.html
|   ind2.html
|   index-Old.html
|   loopback.html
|   main-Old.html
|   main-Template.html
|   main.html
|   Payor.html
|   Payor2.html
|   RecovTime2.html
|   SurgTime2.html
|   +---[All]
|       index-Old.html
|       main-Old.html
|       main-Template.html
|       main.html
|   +---[Img]
|       \---[centers]
|           AAA.jpg
|           XYZ.gif
|   \---[NewCenterTemplateFolder]
|       +---[Download]
|       +---[Month]
|       +---[MonthCumul]
|       +---[Quarter]
|       |   index.html
|       |   \   main-Old.html
```

Caution: This tree structure can be easily customized. To simplify the manual, the current tree structure is used, so if you have customized some of the paths then replace the default paths used in the documentation with your own.

## [Data] folder

Soix.mdb

This is the main database for SOIX report system. There are two tables inside this file: MEDREC and PATINT2. MEDREC contain all medical records and PATINT2 – all patient interview records. This file is used by Data\_Calculator module only (see the description of this module later).

## [Archive] folder and [Backup] folder

These folders are not used anymore. They were used to store incremental files produced by OMS 2.0.

## [INI] folder

This folder contains the configuration files. These configuration files are designated for an end user and they allow to define "what reports will be generated". You cannot modify the layouts or mathematical expressions that are used by the report system – "how reports will be generated". These files should be modified every time when new reports are generated. The current version of the SOIX reports system supports one file only.

Caution: The current version of the report system does not have checks of correctness of the parameters in the configuration files, so be very careful when you modify these files. In most cases, you will get a runtime error if there is a typo in the configuration files, but in some cases, if the typo is not a trivial one, the reports will be generated without any error messages but the results will be not the correct ones. Currently, TAB character is not supported, so use spaces to tabulate the configuration files.

Report.ini

This file is used to define the periods to generate reports for. The format of the file is the following:

Name\_of\_Parameter=Value.

Comments can be used also. To use comments type a ";" character in the beginning of the comment line. Everything after the ";" character will be ignored by the report system. Almost all modules of SOIX report system use this file. In the APPENDIX, you can see the current version of Report.ini file.

Let's consider all parameters in more details.

Name of field	Allowed values	Description
CalculationDate	mm/dd/yyyy	The report system works in the following way: by default, it determines the current periods for Quarterly and Monthly reports using the current system date. For example, when you run the report system on 9/30, as the "current month" for reports, it uses the 8th month (August) and as the "current quarter" it uses the 3rd quarter (from June to August). SOIX generates reports on the 15th day of each month and this does not create any problems, but if one of the centers requests to generate reports before the 15th day but after the 1st day of a month then in this case, by default, the report system will use the previous month as the "current month". And this is not what we want because it is too early to generate the new reports (there is no patient interview records for most medical records) – we just want to recalculate the existing reports. So, to solve this problem, this parameter was introduced. If this parameter has empty value then SOIX report system

		uses the system date as the "current date". if it is not empty then it uses a value of this parameter. Also this parameter is required to generate sample reports. There is a special version of "soix.mdb" file for sample reports. All records in this database are dated before June 1997, so if the system date is used as the datum then only reports for previous periods can be generated, but if you make the CalculationDate equal to any day in June then May is treated as the "current month".
MinNumberOfCases	Integer	Only procedures that have "MinNumberOfCases" or more cases are shown in the "The Executive Benchmark Table" and in the paper reports.
Confidence	Real	This is a coefficient before standard deviation to calculate tolerable limits.
FoundationDate	mm/dd/yyyy	This date is used as the beginning date for the cumulative reports.
QuarterlyReports	Yes, No	Generate quarterly reports?
QuarterStart	1,2,3,4	Beginning quarter for quarterly reports
QuarterYearStart	yyyy	Beginning year for quarterly reports
QuarterEnd	1,2,3,4	End quarter for quarterly reports
QuarterYearEnd	yyyy	End year for quarterly reports
MonthlyReports	Yes, No	Generate "current month reports"?
MonthStart	1-12	Beginning month for "current month reports"
MonthYearStart	yyyy	Beginning year for "current month reports"
MonthEnd	1-12	End month for "current month reports"
MonthYearEnd	yyyy	End year for "current month reports"
CumulativeMonthlyReports	Yes, No	Generate "cumulative reports"?
CumulativeMonthStart	1-12	Beginning month for "cumulative reports"
CumulativeYearStart	yyyy	Beginning year for "cumulative reports"
CumulativeMonthEnd	1-12	End month for "cumulative reports"
CumulativeYearEnd	yyyy	End year for "cumulative reports"
RunMode		Currently this parameter is not used.
CleanedDBF		Currently this parameter is not used.
StandardReport	Yes, No	Currently this parameter is not used.
StartDate	mm/dd/yyyy	Currently this parameter is not used.
EndDate	mm/dd/yyyy	Currently this parameter is not used.

## Other configuration files

Currently there is one more configuration file. Its name is "new-soix.ini" and it is located in the Windows main directory (this directory can be determined using %WINDIR% environment-variable). This file is used by all modules as the main purpose of this file is to provide paths to the different components of the report system.

new-soix.ini

The format of the file is the following:

Name\_of\_Parameter=Value

Here is the list of all parameters in this file:

Name of field	Allowed values	Description
<b>Shared parameters that are used by all modules.</b>		
INIPath	A path to a directory.	A path to the folder where INI config files are located.
LogPath	A path to a directory.	A path to the folder where LOG files will be created.
MDBFile	Full path to a file	Full path to the report master database.
LSTPath	A path to a directory.	A path to the folder where LST files are located.
OMS2ArchiveDirectory	A path to a directory.	This parameter was used when OMS 2.0 was used as a front end, so now the parameter is not used.
OMS2BackupDirectory	A path to a directory.	This parameter was used when OMS 2.0 was used as a front end, so now the parameter is not used.

TemplateDirectory	A path to a directory.	A path to the folder where HTML template files are located.
UploadDirectory	A path to a directory.	A path to the folder where centers upload incremental files.
InternetDirectory	A path to a directory.	A path to the folder where centers reports are located.
<b>Parameter used by the paper report modules only</b>		
NewReportsInternetDirectory	A path to a directory	A path to the folder where new reports will be generated. This parameter was introduced as the report generation process takes a lot of time and there is a probability that centers may access their reports during this process. In this situation centers will not be able access their reports at least, but at the same moment there is a probability that these actions may interrupt the report generation process.
SavePathForPaperReport	A path to a directory	This parameter points to the path where paper report will be generated.
Target	"Web" or "Folder"	This parameter defines the way in which the paper report will be generated. When it is equal to "Folder" than these reports are placed in the separate folder defined by "SavePathForPaperReport" parameter. If this parameter is equal to "Web" than the paper report files will be placed in the centers folders like the modules that generate web-reports do. This option allows to make these reports available for the access trough the Internet.
<b>Parameters used by "New_Center_Prepare" module</b>		
NTSecDirectory	Name of folder	This parameter defines a name of the folder where programs from the NTSEC pack are located. These programs are used to set up Windows NT permissions for the centers' upload folders.
ApacheUsersFile	Full path to a file.	This parameter defines a full path to apache users file that will created from scratch by the "New_Center_Prepare" module.
ApacheUsersFile	Full path to a file.	This parameter defines a full path to Apache users file that will created from scratch by the "New_Center_Prepare" module. This file is used to restrict an access to member sites.
ApacheGroupsFile	Full path to a file.	This parameter defines a full path to an Apache groups file that is used to restrict an access to member sites.
NewCenterTemplateFolder	A path to a folder	This parameter points to a directory where template files are stored. These files are used to create sites for new centers.
PrepareUploadStuff	"Yes" or "No"	Prepare "upload" folder for a new center?
PrepareDownloadStuff	"Yes" or "No"	Prepare "download" folder for a new center?
PrepareHTMLFiles	"Yes" or "No"	Prepare index HTML files for a new center?

### **[Log] folder**

This folder is used to store log files that are generated by different modules of SOIX report system.

#### **Executive\_Table.log**

This file is generated by Executive\_Table module of the report system.

#### **Executive\_Table\_Paper\_Reports.log**

This file is generated by Executive\_Table\_Paper\_Reports module of the report system.

#### **DataTable.log**

This file is generated by DataTable module of the report system.

#### **Data\_Calculator.log**

This file is generated by Data\_Calculator module of the report system.

GrabFile.log

This file is generated by GrabFile module of the report system.

ProcDistrib.log

This file is generated by ProcDistrib module of the report system.

report.log

This file is generated by report module of the report system.

Comparison\_Table.log

This file is generated by Comparison\_Table module of the report system.

### [LST] folder

This folder contains configuration files like the [INI] folder does. But unlike the [INI] folder, almost all of these files are responsible either for mathematical calculations or for the layout of the reports. So these files should be modified very rarely (Exception is Sites.lst file) only when some changes in the reports themselves are made. Most of these files are a list of strings that have the same structure. Usually each string consists of several fields and the fields are separated by "\*" character.

Caution: The current version of the report system does not have checks of correctness of the parameters in the configuration files, so be very careful when you modify these files. In most cases you will get a runtime error if there is a typo in the configuration files, but in some cases, if the typo is not a trivial one, reports will be generated without any error messages but the results will be not correct ones. Currently, TAB character is not supported, so use spaces to tabulate the configuration files.

Executive\_Table.lst

Executive\_Table.lst is used by Executive\_Table module. This file contains a list of indicators that will be shown in "The Executive Benchmark Table". The format of each string is the following:

Indicator\_Name\*Numerator\*Denominator\*Description\*MinOrMax\*Link

Name of field	Allowable value	Description
Indicator_Name	The same restrictions as whose for field name in MS Access	This is a name of the indicator, this name is used for internal purposes of "Executive_Table" module and as a link to the HTML file that describes the indicator. In Fig. 5, the label number 2 shows the place where this text is used. Some HTML tags may be used (Example:  , <i>, <font>), as this text is inserted directly in html files without any parsing.
Numerator	the name of a field from "*"_dump.mdb" tables	This field is used as the numerator to calculate an indicator. Expression that is used to calculate indicators is the following: $\text{Indicator} = \text{Numerator} / \text{Denominator} * 100\%$
Denominator	the name of a field from "*"_dump.mdb" tables	This field is used as the denominator to calculate an indicator. Expression that is used to calculate indicators is the following: $\text{Indicator} = \text{Numerator} / \text{Denominator} * 100\%$
Description	any text string	Description of the indicator. In Fig. 5, the label number 1 shows the place where this text is used. Some HTML tags may be used (Example:  , <i>, <font>), as this text is inserted directly into html files without any parsing.



MinOrMax	"Min", "Max"	Use "Min" for indicators that should be minimized and "Max" for indicators that should be maximized.
Link	a path to a html file	A path to the html file that describes this indicator. (Example: "/genrep/ind1.html")

In the APPENDIX you can see the current version of Executive\_Table.lst file.

### Sample Center

## EXECUTIVE BENCHMARK TABLE: INDICATOR STATUS AND TRENDS

Quarter 1, 1999 to Quarter 4, 1998

Table was created on 06/30/1999

	Arthroscopy, Knee	Carpal Tunnel	Cataract Removal	GI Endoscopy	Laparoscopy, Gyne
Perioperative Complications (Ind1)					
Delayed in Discharge (Ind2)					
Returns to Surgery (Ind3)					
Admits to Hospital (Ind4)					
Pain Episodes Not Relieved (Ind5)					
Care Not Needed After Discharge (Ind6)					
Pain Controlled After Discharge (Ind7)					
Satisfied Patients (Ind8)					
Effective Discharge Instructions (Ind9)					
Patients Prepared for Self-Care (Ind10)					

Comparison with all  
centers (where you are  
now)

- Better than average
- Average
- Worse than average

Comparison of current results with  
those for the previous period  
(where you are going)

- Improving
- No change
- Worsening

Fig. 5. Example of "The Executive Benchmark Table" table.

DataTableItems.lst

DataTableItems.lst is used by DataTable\_Creator module only. DataTable\_Creator module generates "Data Tables" file ("DataTable.html"). DataTableItems.lst consist of several sections. Each section corresponds to a separate table in "DataTable.html" file. Strings that are located inside each section are used to customize the rows in tables. Each section begins with the following string:

```
---Name_of_Table*Total_by_Proc_Flag
```

Name of field	Allowable value	Description
---------------	-----------------	-------------

Name_of_Table	Any text	Name of a table. In Fig. 6 the label number 1 shows the place where this text is used. Some HTML tags may be used (Example:  , <i>, <font>), as this text is inserted directly into an HTML file without any parsing.
Total_by_Proc_Flag	"TotByProc", ""	If this field equals to "TotByProc" then the last row "Total by Procedure" is calculated for this table, if this field is empty then this last row is not calculated. See Fig 6 labels 2.

Strings, following each section header, describe rows in the table. The format of these strings is the following:

Name\_from\_Dump\_DB\*Row\_Name

Name of field	Allowable value	Description
Name_from_Dump_DB	the name of a field from "_dump.mdb" tables	Module DataTable_Creator takes the value of Name_from_Dump_DB field in "_dump.mdb" table and puts this value into the table without any modifications and calculations.
Row_Name	Any text	Name of a row. On Fig. 6 label number 3 shows the place where this text is used. Some HTML tags may be used (Example:  , <i>, <font>), as this text is inserted directly into an HTML file without any parsing.

**ANESTHESIA**

1 **Site: Sample Center (SMP)**  
**Date of Procedure: 01/01/1999 - 03/31/1999**  
 (Table was created on 06/30/1999)

3

	Arthroscopy, Knee	Carpal Tunnel	Cataract Removal	GI Endoscopy	Laparoscopy, Gyne	Total
General	139	3	0	0	34	176
Spinal	11	0	0	0	0	11
IV/Local-MAC	0	8	63	91	0	162
Local	0	5	1	0	0	6
Other	0	33	0	0	0	33
Total by Procedure	150	49	64	91	34	388

2 **PAIN AND COMPLICATIONS**  
**Site: Sample Center (SMP)**  
**Date of Procedure: 01/01/1999 - 03/31/1999**  
 (Table was created on 06/30/1999)

	Arthroscopy, Knee	Carpal Tunnel	Cataract Removal	GI Endoscopy	Laparoscopy, Gyne	Total
No Pain, No Complications	123	45	62	87	10	327
Pain	17	4	2	3	23	49
Nausea	12	0	0	1	4	17
Vomiting	6	0	0	0	2	8
Instability Of Vital Signs	1	0	0	1	0	2
Respiratory Problems	0	0	0	0	1	1

Fig. 6. Example of "Data Tables" file

Indicators.lst

Indicators.lst is used by Chart\_Generator module only. Indicators.lst consist of several sections. Each section corresponds to a separate report (the current version of Chart\_Generator module generates the following reports: "Age Distribution", "Recovery Time", "Surgery Time", "General Indicators", "Complications by Payor", "Complication by Anesthesia"). Each section begins with the following string:

---With\_Tolerance\*Without\_Tolerance\*Chart\_Header\*Chart\_Footer

Name of field	Allowable value	Description
---------------	-----------------	-------------

With_Tolerance	Name of a HTML file without extension or nothing	The HTML file must be in the [SOIX_Report_Sytem] \ [Template] folder. If this field is empty then the version with tolerance limits of this report is not generated. In the section where folder [SOIX_Report_Sytem] \ [Template] is described you can find more information about internal structure of template files. (Example: for "General Indicators" reports with tolerance zone the template file is "ind.html", so With_Tolerance field equal "ind").
Without_Tolerance	the name of a HTML file without extension or nothing	The HTML file must be in the [SOIX_Report_Sytem] \ [Template] . If this field is empty then the version with tolerance limits of this report is not generated. In the section where folder [SOIX_Report_Sytem] \ [Template] is described you can find more information about internal structure of template files. (Example: for "General Indicators" reports without tolerance zone the template file is "ind2.html", so With_Tolerance field equal "ind2").
Chart_Header	Any text	This text is used as a header in the report chart. See Fig. 7, label 1. To insert "Enter" in this string use " " (double vertical bar). Also values of the fields from "*_dump.mdb" tables and values of all indicators calculated inside Chart_Generator module can be used. To use them, use the following format: %Name_Of_FieldThisSite% for current center and %Name_Of_FieldAllSites% for all centers (Example: Total Medical Records field has the name TotMR, so placeholders for it will be %TotMRThisSite% and %TotMRAllSites%). In each section of Indicators.lst file, a user assigns names for each indicator that is calculated by Chart_Generator module – although these names and values of indicators are not saved anywhere, you can still use them in Chart_Header field (Example: In section "General Indicators" indicator with name "ind1" is defined, so you can use placeholders %ind1AllSites% and %ind1ThisSite%.)
Chart_Footer	Any text	This text is used as a footer in the report chart. See Fig. 7, label 2. All instruction for Chart_Header field can be used for this field.

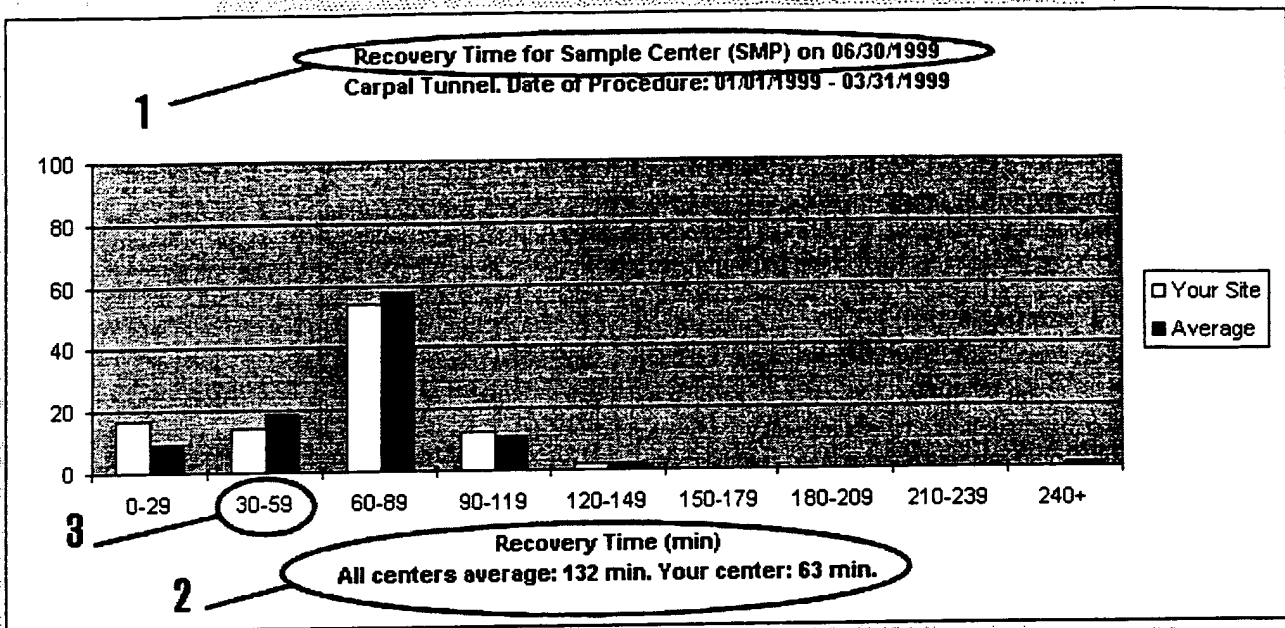
Indicators for each section are described after the section header. The format of indicator description string is the following:

Indicator\_Name\*Numerator\*Denominator\*AxesLabels

Name of field	Allowable value	Description
Indicator_Name	The same restrictions as whose for field name in MS Access	Used for internal calculations only. Make sure that there is no any field in "*_dump.mdb" files with the same name.
Numerator	the name of a field from "*_dump.mdb" tables	This field is used as the numerator to calculate the indicator. The expression that is used to calculate indicators is the following: Indicator = Numerator/Denominator*100%
Denominator	the name of a field from "*_dump.mdb" tables	This field is used as the denominator to calculate the indicator. The expression that is used to calculate indicators is the following: Indicator = Numerator/Denominator*100%
AxesLabels	Any text	This text is used in charts as label of the indicator. To put "*" character use double caret characters ("^"). See Fig. 7 label 3.

## Recovery Time

The diagram below shows the level of the indicator achieved in YOUR CENTER as a wide white bar.  
The AVERAGE level at all the participating centers is shown as a blue bar.



	0-29	30-59	60-89	90-119	120-149	150-179	180-209	210-239	240+
All Sites:									
Ratio	8.9	19.0	59.0	10.9	2.0	0.0	0.0	0.0	1.2
Cases for Given Range	44	94	287	54	10	0	0	0	8
Total Cases: 495									
Your Site:									
Ratio	16.7	14.6	54.2	12.5	2.1	0.0	0.0	0.0	0.0
Cases for Given Range	8	7	28	8	1	0	0	0	0
Total Cases: 48									

Fig. 7. A sample of report page.

### LogMessages.lst

Almost all report system modules use this file. This file defines different log messages. The format of each string is the following:

Message\_Name=Text\_of\_Message

where Message\_Name is a name of message (report system modules use this name to refer to log messages) and Text\_of\_Message is a text of message. Usually a message text is much longer than Message\_Name, so the main purpose of LogMessages.lst file is to eliminate extra text and also this lst file allows to attain the similarity of log messages throughout all modules. See the current version of this file in the APPENDIX.

### Comparison\_table.lst

This file is used by Comparison\_table module. It is divided into several sections. Each section begins with a header and represents a separate group of indicators in "Comparison Table" (paper reports). The format of the header is:

---Header\_of\_indicator\_group\*

where Header\_of\_indicator\_group contains a text that will be used as a header of indicator group (See Fig 8, label 1). If Header\_of\_indicator\_group is empty then no header is used and all indicators in this group have a bold font (see Fig. 8, label 3).

Each section is followed by indicator definitions. The format of these definitions is the following:

Numerator\*Denominator\*Descripting\_Text\*

Name of field	Allowable value	Description
Numerator	the name of a field from "*_dump.mdb" tables	This field is used as a denominator to calculate the indicator. The expression that is used to calculate indicators is the following: $\text{Indicator} = \text{Numerator} / \text{Denominator} * 100\%$
Denominator	the name of a field from "*_dump.mdb" tables	This field is used as the denominator to calculate the indicator. The expression that is used to calculate indicators is the following: $\text{Indicator} = \text{Numerator} / \text{Denominator} * 100\%$ . If Denominator is empty then Numerator is used only and the expression becomes as $\text{Indicator} = \text{Numerator}$
Descripting_Text	Any text	Name of a row. In Fig. 8, the label number 2 shows the place where this text is used. Some HTML tags may be used (Example:  , <i>, <font>), as this text is inserted directly into an HTML file without any parsing.

Corporate\_Members.lst

Almost all modules use this file. This file describes corporate members. Each corporate member is represented by a separate section. All sections have a header. The format of headers is:

---GroupName\*GroupUsername\*GroupUserCode\*members\_access

where GroupName is a name of the group; GroupUsername is a username of the group (this username is used to access reports); GroupUserCode is a three-letter usercode of the group; members\_access ("Yes" or "No") is used to restrict the access of separate members to the reports. members\_access is used by "New\_Center\_Prepare" module to customize Apache ".htaccess" files. If members\_access="Yes" then the separate members of the group can access their reports otherwise only GroupUsername can be used to access the reports.

The header of the section is followed by a list of usercodes of centers that belong to the group. The usercodes are separated by "Enter" key.

## Comparison Table - Sample Center

YOUR PROCEDURE GROUPS												
3	2	1	Arthroscopy, Knee		GI Endoscopy		Cataract Removal		Carpal Tunnel		Laparoscopy, Gyne	
			Your Center	All Centers	Your Center	All Centers	Your Center	All Centers	Your Center	All Centers	Your Center	All Centers
Number of Patients			150	1269	91	1372	64	856	49	505	34	388
Time (Minutes)												
Time For Procedure			37	46	176	124	27	26	16	52	31	99
Time For Recovery			98	184	657	454	29	30	63	132	111	362
Time For Patient Interview			4	4	3	3	2	2	4	4	3	3
Problems Before Leaving Surgery Center												
Percent Normal Discharge			100.0	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent without Problems			82.0	84.9	95.6	97.1	96.9	96.6	91.8	95.0	29.4	36.6
Percent with Post Operative Pain			53.3	61.2	2.2	1.5	4.7	5.3	18.4	14.9	67.6	60.1
Percent Medications Ordered			100.0	100.0	50.0	50.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Pain Relieved			96.3	97.7	50.0	50.0	66.7	71.1	100.0	96.0	100.0	100.0
Percent Pain Prescription Given			99.3	99.0	2.2	1.5	3.1	3.0	100.0	97.6	91.2	90.7

Fig. 8. An example of "Comparison Table" that is used in "Paper Reports".

### ProcConv.lst

This file is used by Appender and Data\_Calculator. This file defines a mapping table between the CPT codes and the procedure groups. When Appender module appends new data it ignores the "PROC" fields in incremental files and uses this mapping, in the same way Data\_Calculator ignores the existing "PROC" field in the report master database and recreates this field using the mapping. All strings in ProcConv.lst file have the same format:

CPT\_Code\* Procedure\_Group

where CPT\_Code is a five digit CPT code and Procedure\_Group is the name of the corresponding procedure group. See the current version of ProcConv.lst file in the APPENDIX.

### ProcDistrib.lst

ProcDistrib.lst file is used by ProcDistrib module. It defines what fields from "\*\_dump.mdb" databases should be displayed in the "Case Distribution" table. The format of the file is the following:

Field\_Name\*Descripting\_Text\*

Name of field	Allowable value	Description
Field_Name	the name of a field from "*_dump.mdb" tables	Use only fields that contain absolute number of cases. In current version of the report system almost all fields satisfy this restriction – only the fields with average times do not satisfy.
Descripting_Text	Any text	Name of the column. In Fig. 9, the label number 1 shows the place where this text is used. Some HTML tags may be used (Example:  , <i>, <font>), as this text is inserted directly into an HTML file without any parsing.

**Case Distribution**  
**Date of Procedure: 03/01/1999 - 10/31/1999**  
**Table was created on 11/16/1999**

Procedure Name	Center	Medical Records	Patient Interview
Arthroscopic ACL Repair (1 center)	GCA	2	2
	Total	2	2
Breast augmentation (3 centers)	AAM	10	10
	AAS	19	15
	RSA	1	1
	Total	30	26
	AAD	47	47
	AAE	14	14
	AAL	8	8
	AAS	10	5
Rhinoplasty (2 centers)	Total	10	9
	AAE	1	1
Rhytidectomy (4 centers)	AAM	3	3
	AAS	1	1
	RSA	1	1
	Total	6	6
Grand Total		4,999	4,581

Fig. 9. An example of "Case Distribution" table

Current version of the file contains the two strings only:

```
TotMR*Medical Records*
TotPI*Patient Interview*
```

but this list can be easily expanded as a need in new columns arises. Currently, "Case Distribution" table is accessible to the SOIX staff only and is used to get a more complete picture of the current state of the report master database.

Sites.lst

Almost all modules of the report system use this file. It contains information about centers – it describes relationship between usercodes, real names and usernames. The format of this file is:

```
Three_Letter_USERCODE*real_Name_of_center*Centers_Username
```

where Three\_Letter\_USERCODE is the usercode of the center; real\_Name\_of\_center is the real name of the center and Centers\_Username is the username. Note that string

```
ALL*All centers*
```

MUST be first. This string defines usercode for all centers.

Stage1.lst



This file is used by Data\_Calculator module only. It describes the mathematical expressions using the MS SQL language. To get a table that contains procedure level data for a certain period, Data\_Calculator module runs in two stages. On the first stage, the module uses Stage1.lst file to create a "SELECT"-query that combines MEDREC and PATINT2 tables in one table. Instead of the original fields, this table contains new calculated fields that are used to calculate fields in "\*\_dump.mdb" files on the next stage. On this stage, the records are not grouped by procedure groups and centers usercodes – they are still patient-level ones.

The format of strings of this file is the following:

Name\_of\_Field\_1\*SQL\_Expression

Name of field	Allowable value	Description
Name_of_Field_1	The same restrictions as whose for field name in MS Access	When you select a name for this field, make sure that this field must be unique among fields in MEDREC table, PATINT2 table and fields defined in Stage1.lst and Stage2.lst files.
SQL_Expression	Expression in MS SQL language	Use help files for MS Access or Visual Basic to get additional information about MS SQL language. In SQL_Expression field, you can use Name_of_Field_1 fields from other strings of Stage1.lst file, but be careful and do not create an unsolvable situation when in the current string you use another field, but the SQL_Expression for that field uses Name_of_Field_1 for the current string. This is so called "Circular reference".

A simplified version of "SELECT"-query used on the first stage may be written in the following way:

```
SELECT expression_1 AS field_1,...,expression_k AS field_k,...,expression_N AS field_N FROM
table
```

Name\_of\_Field is used as *field\_k* and SQL\_Expression is used as *expression\_k*.

Stage2.lst

This file is used by Data\_Calculator module only. It describes mathematical expressions using MS SQL language. This file is used on second stage of the calculation of MasterTable (later, records from Mastertable are used to populate "\*\_dump.mdb" files). On this stage MasterTable is finally calculated. It contains procedure-level data. Only this procedure-level data is used by other modules on next steps of report generation process.

The format of strings of this file is the following:

Name\_of\_Field\_2\*Data\_Type\_of\_Field\*SQL\_Expression\*Denominator\*

Name of field	Allowable value	Description
Name_of_Field_2	The same restrictions as whose for field name in MS Access	When you select a name for this field, make sure that this field must be unique among fields in MEDREC table, PATINT2 table and fields defined in Stage1.lst and Stage2.lst files.
Data_Type_of_Field	Text, Long, Single	Defines a type of the field. Currently three data types are supported but this list can be easily expanded.

SQL_Expression	Expression in MS SQL language	Use help files for MS Access or Visual Basic to get additional information about MS SQL language. Inside the SQL_Expression you can use Name_of_Field field from other strings of Stagel.lst file, but be careful and do not create an unsolvable situation when in current string you use another field, but SQL_Expression for that field uses Name of Field of current string.
Denominator	Any item from the Name_of_Field_2 list	<p>Most of the fields from Name_of_Field_2 list are absolute numbers of cases, so to get a value for the whole industry, values for different centers must be just summed up. Some of the fields like average times are not applicable to this rule, they contain relative values, so a simple addition cannot be used to calculate the whole industry values. In this case the following mathematical expression is used:</p> $Ind_{All} = \frac{\sum_{k=1}^N (Ind_k \times Denom_k)}{Denom_{All}},$ <p>where <math>Ind_{All}</math> – value for the whole industry, <math>Ind_k</math> – value for <math>k</math> center, <math>Denom</math> – denominator for the field. So Denominator defines a field that is the denominator for a given indicator. If Denominator is empty then an ordinary addition is used.</p>

### [Templates] folder

Files in this folder are not used by the report system. The purpose of the folder is to store ready-to-use configuration files for different types of reports. For example, you can use this folder to store configuration files used to generate sample reports. Currently, this folder contains two files only (Sample-Sites.lst and Full\_List\_Sites.lst) – they are two versions of Sites.lst file: one is for the usual reports, another for the sample reports.

When the list of centers expands, you should modify Full\_List\_Sites.lst file first and then copy it to [LST] folder under Sites.lst name. In this case, there is no need to backup Sites.lst file when sample reports must be generated.

### [Programs] folder

This folder contains all modules of the report system. Currently all modules may be divided into two groups: for "Paper Quarterly Reports" and for "Web Reports". [Paper\_Reports] and [Web\_Reports] folders were created according to this breakdown.

### [Paper\_Reports] folder

This folder contains modules that are used to generate reports for the "Paper Quarterly Report". The HTML files generated by the paper reports modules are created in the folder defined by "SavePathForPaperReport" (currently it is "C:\SOIX\WebSites\SOIX\Paper\_Reports") parameter in the "new-soix.ini" file. The current structure of the "Paper\_Reports" folder is:

```
[PAPER_REPORTS]
+---[Comparison_Table]
|
|   +---[QyyyY-qq]
|   |
|   |   +---XYZ-FullNameOfXYZ.html
|   |
+---[Executive_Table]
```

## Executive\_Table\_Paper\_Reports.exe

This module generates "Executive table" for the paper quarterly report. It creates HTML files for all quarters defined in report.ini file.

As input files, this module uses:

1. "report.ini" – defines periods for which the reports are calculated;
2. "Executive\_Table.lst" – defines indicators that will be used in "Executive table";
3. "sites.lst" – defines a list of sites for which the reports are calculated;
4. "LogMessages.lst" – defines a list of log messages;
5. "\*\_dump.mdb" – contain data for calculations.

Output files are:

1. "Executive\_Table\_Paper\_Reports.log" – log file for this module;
2. HTML file with the names in the format "*UserCode-CentersFullName.html*" – report files.

Currently the reports are generated for the top five procedure groups only. Constant "NumberOfProcedures" in the Executive\_Table\_Paper\_Reports module defines the number of these procedures.

## Comparison\_table.exe

This module generates "Comparison table" for the paper quarterly report. It creates HTML files for all quarters defined in "report.ini" file.

As input files this module uses:

1. "report.ini" – define periods for which the reports are calculated;
2. "Comparison\_table.lst" – defines indicators that will be used in "Comparison table";
3. "sites.lst" – define a list of sites for which the reports are calculated;
4. "LogMessages.lst" – defines a list of log messages;
5. "\*\_dump.mdb" – contain data for calculations.

Output files are:

1. "Comparison\_table.log" – log file for this module;
2. HTML file with the names in the format "*UserCode-CentersFullName.html*" – report files.

Currently the reports are generated for the top five procedure groups only. "NumberOfProcedures" constant in the source code of Comparison\_table.exe module defines the number of procedures.

## [Web\_Reports] folder

This folder contains modules of the report system that generate reports provided through the Internet.

This module appends incremental files into "Report Master Database" ("soix.mdb") file. It uses only one configuration file (new-soix.ini). This module scans all centers directories located under upload directory defined by parameter "UploadDirectory" ("new-soix.ini" file) and append incremental records from these folder to the master database (soix.mdb). Appended incremental files are moved to the centers "Backup" folder located under their upload directories.

Chart\_Generator.exe

This module generates the large part of reports. It creates the following reports:

1. Age Distribution,
2. Recovery Time,
3. Surgery Time,
4. General Indicators,
5. Complications by Payor,
6. Complication by Anesthesia.

As input files this module uses the following ones:

1. Corporate\_Members.lst
2. Indicators.lst
3. "\*\_dump.mdb" files
4. MasterTable.mdb
5. Sites.lst
6. LogMessages.lst
7. all HTML template files from folder, defined by "TemplateDirectory" parameter in "new-soix.ini" (currently it is [SOIX\_Report\_System]\[Template]).

As it was written in "The structure of report folders on the SOIX private web site", all reports may be divided into two types: the reports which contain data for all procedure groups in one page and whose that have separate page for each procedure group. Actually Chart\_Generator.exe module is the only one that generates reports represented in separate pages. As it was written before, report folders for all periods have special sub-folders for each procedure group (in Fig.1 these folders are shown as [Proc\_1], [Proc\_2], [Proc\_k] and [Proc\_Z]) and there are the index files (on Fig.1 these files are referred as report\_index\_file\_1.html, ..., report\_index\_file\_M.html) that contain links to this report pages. All these folders and files are generated by Chart\_Generator.exe. Also, this module refreshes main-Old.html, main page of each center (index.html file that are located directly in the center's folder, not in sub-folders), and index.html files for all recalculated periods.

If centers sent their favorite pictures to place in their report title pages, to use them you should:

1. convert pictures to JPEG or GIF format;
2. name them using the format "USERCODE.(jpg or gif)" (For Example aaa.jpg, aba.gif).
3. put all these files in sub-folder "img\centers" of "SOIX\_Report\_System\Template" folder.

If a center that has a common picture is included in "Sites.lst" then the main page and main picture will be updated by Chart\_Generator.exe.

Chart\_Generator.exe module has a very important difference from other report modules. When other report modules are running they update only the report files that they generate – they do not delete any other report files, so there is no need to rerun other modules later. But when the Chart\_Generator.exe module is running, it deletes the whole report folder for a given period, so all other report generating modules should be rerun. Currently such behavior is pretty reasonable because Chart\_Generator.exe module takes more than 90% of time to create new reports.

#### Executive\_Table.exe

This module creates "The Executive Benchmark Table" tables for quarter reports. As input files it uses:

1. Sites.lst
2. Corporate\_Members.lst
3. Executive\_Table.lst
4. LogMessages.lst
5. "\*\_dump.mdb" files
6. report.ini
7. new-soix.ini

As output files, it creates "Executive\_Table.html" files for all quarters defined in "report.ini" file. This module can be easily modified to generate the reports for other periods, not for quarters only.

#### DataTable\_Creator.exe

This module generates "Pain, Complication & Patient Satisfaction" tables.

Input files:

1. DataTableItems.lst
2. Corporate\_Members.lst
3. Sites.lst
4. "\*\_dump.mdb" files
5. report.ini
6. new-soix.ini

Output files:

1. DataTable.log
2. DataTable.html files for each report period defined in "report.ini"

#### Data\_Calculator.exe

This module calculates procedure-level data for all centers. Only this module and "APPENDER" have direct access to the SOIX main database (soix.mdb file), all other modules just use procedure-level data. This allows to eliminate extra calculations, for example if the layout of several reports is changed then there is no need to recalculate the data, you just run the

necessary modules and then refresh the reports. In most cases it takes much less time than when the data should be recalculated.

As input files this module uses:

1. soix.mdb
2. Corporate\_Members.lst
3. Stage1.lst
4. Stage2.lst
5. report.ini
6. new-soix.ini
7. sites.lst
8. LogMessages.lst
9. ProcDistrib.lst

And output of the module is:

1. all "\*\_dump.mdb" files;
2. "MasterTable.mdb" files in "centers\All\MasterTableArchive" folder.

Actually "MasterTable.mdb" files do not contain any new data they just duplicate data in "\*\_dump.mdb" files, but the data organized in a different way – the data for all centers for a given period are stored in one place. For some reports it allows to eliminate extra hard drive access.

ProcDistrib\_Creator.exe

This module creates "Case Distribution" tables. These tables are created for the whole network only. They show case distribution by procedure group and by site inside each procedure group. Currently the number of medical records and patient interviews are present on these tables, but this list can be easily expanded by editing ProcDistrib.lst file.

Input files:

1. new-soix.ini
2. report.ini
3. LogMessages.lst
4. ProcDistrib.lst

Output files:

1. ProcDistrib.log
2. ProcDistrib.html for all periods defined in report.ini file

### **[Template] folder**

Age\_Distribution2.html

This file is a template for "Age Distribution" report. This file used by "Chart\_Generator" module only.

Anest.html

This file is a template for "Complication by Anesthesia" with tolerance zone report. This file used by "Chart\_Generator" module only.

Anest2.html

This file is a template for "Complication by Anesthesia" without tolerance zone report. This file used by "Chart\_Generator" module only.

ind.html

This file is a template for "General Indicators" with tolerance zone report. This file used by "Chart\_Generator" module only.

ind2.html

This file is a template for "General Indicators" without tolerance zone report. This file used by "Chart\_Generator" module only.

index-Old.html

This file is used for "Reports for Previous Periods". Chart\_Generator.exe module creates index.html files for these reports. This file is used by Chart\_Generator module.

loopback.html

This file is shown instead of reports when a center does not have data for certain period. This file is used by Chart\_Generator, DataTable\_Creator and ProcDistrib\_Creator modules.

main-Old.html

This file is used as main page for reports for previous period. It contains links to these reports. You may see a sample of this file on Fig.3. This file is used by Chart\_Generator module.

main-Template.html

This file is used as main index page for "Current Month Reports", "Quarterly Reports" and "Cumulative reports". This file is used by Chart\_Generator module.

main.html

This file is used as center's main page. This page includes either default SOIX picture or a favorite picture of the center. This file is used by Chart\_Generator module.

Payor.html

This is a template for "Complications by Payor" reports with tolerance limits. This file is used by Chart\_Generator module.

Payor2.html

This is a template for "Complications by Payor" reports without tolerance limits. This file is used by Chart\_Generator module.

RecovTime2.html

This is a template for "Recovery Time" reports. This file is used by Chart\_Generator module.

SurgTime2.html

This is a template for " Surgery Time" reports. This file is used by Chart\_Generator module.

#### [All] folder

This folder contains files that are used for reports for the whole network. Currently there are four files in this folder:

1. index-Old.html
2. main-Old.html
3. main-Template.html
4. main.html

They have the same application as corresponding templates in the upper template folder.

#### [Img] folder

This folder stores various images that are used for reports. Currently it contains [centers] folder only. This folder is used to store centers' favorite pictures in the following format: "USERCODE.(jpg or gif)", where USERCODE is three-letter user code of a center (For example: aaa.jpg, aza.gif).



### ***How to install the report system***

1. Copy whole "Soix\_Report\_System" folder to the directory of your choice on the new computer;
  2. Copy file "new-soix.ini" from "Soix\_Report\_System\ini" folder to your windows directory (this directory is defined by "WINDIR" environmental variable – you can check the value of this variable using "set" command by running it in the MS-DOS prompt);
  3. Customize the copy of file "new-soix.ini" located in the windows directory – make sure that:
    - a. Parameters "INIPath", "LogPath", "MDBFile", "LSTPath", "TemplateDirectory", "NewCenterTemplateFolder" corresponds to the new location of the "Soix\_Report\_System" folder;
    - b. Parameters "UploadDirectory", "InternetDirectory", "NewReportsInternetDirectory", "SavePathForPaperReport", "ApacheUsersFile", "ApacheGroupsFile" corresponds to the location of the web-server powered by Apache;
    - c. Parameter "NTSecDirectory" corresponds to the location of "NTSEC" pack of command line utilities for [REDACTED].
- There is no need to customize "OMS2ArchiveDirectory" and "OMS2BackupDirectory" parameters as they are not used anymore.

### ***How to make backup copies of the report system***

The general rule to determine when backup copies should be made is the following: the data that was changes should be backed up at the end of day when these modifications were made. All folders that should be backed up are located on the main server – they are: “C:\SOIX” and “C:\Admin\_Stuff”. The destination folder for the backup copies is located on the developer workstation and this folder is “X:\SOIX\_Backups”. This folder has sub-folders in the format “yyyy-mm-dd” where “yyyy” is a year, “mm” is a month and “dd” is a day. Each folder corresponds to a backup that was made on “mm/dd/yyyy” day.

If there is no information when the data was changes (so the general rule is not applicable) the following schedule can be used:

1. Folders that should be backed up every day – centers upload folder (“C:\SOIX\WebSites\SOIX\upload”) and the marketing databases (“C:\SOIX\Marketing\_DataBases” folder);
2. Whole “C:\soix” folder and “C:\Admin\_Stuff” folder should be backed up every one or two weeks.

To backup data the following steps should made:

1. Create a folder in the format “yyyy-mm-dd” in the “X:\SOIX\_Backups” folder on the developer workstation (for example if today’s day is 07/21/ [REDACTED] than “[REDACTED]-07-21” folder should be created);
2. Pack all folders that should be backed up and put the archives into the just created backup destination folder (in our example it will be “X:\SOIX\_Backups\[REDACTED]-07-21”). ZIP, ARJ, RAR or any other packing format can be used but ZIP is more preferable as it is more commonly used format. For example if “C:\SOIX\WebSites\SOIX\upload” and “C:\SOIX\Marketing\_DataBases” folders should be backed up, finally you should get two archive files (“Marketing\_DataBases.zip” and “upload.zip”) located in the “X:\SOIX\_Backups\[REDACTED]07-21” folder.
3. If the size of a complete backup (when whole “C:\soix” folder and “C:\Admin\_Stuff” folder are backed up) is not more than 650 Mbytes, this backup should be saved on a CDR disk. When the size is more than 650 Mbytes but less then 700 Mbytes when CDR disks can be used too, but in this case special 700 Mbytes (80 minutes) disks should be used.

### ***How to generate reports***

1. Copy the whole “centers” folder (“InternetDirectory” parameter) to the path defined by “NewReportsInternetDirectory” parameter (currently it is “C:\SOIX\WebSites\SOIX\NEW”) in “new-soix.ini” file (“c:\winnt\new-soix.ini”).
2. Run Appender module (“C:\SOIX\Soix\_Report\_System\Programs\Web\_Reports\APPENDER.mdb”). After it finished, all new records will be added to SOIX Report Master Database (“C:\SOIX\Soix\_Report\_System\Data\soix.mdb”) – “MDBFile” parameter in the “new-soix.ini” file (“soix.mdb” file).
3. Modify “report.ini” (“C:\SOIX\Soix\_Report\_System\INTreport.ini”) file to customize the periods and the type of reports to be generated.
4. Run “Data\_Calculator.exe”. Wait when it finishes.
5. Run “Chart\_Generator.exe”. Wait when it finishes.
6. Run “Executive\_Table.exe”. Wait when it finishes.
7. Run “DataTable\_Creator.exe”. Wait when it finishes.
8. Run “ProcDistrib\_Creator.exe”. Wait when it finishes.
9. Backup current reports (“centers” folder) – rename “centers” folder to “OLD”.
10. Rename the folder defined by the parameter “NewReportsInternetDirectory” to the “centers” folder.
11. Now you can delete the “OLD” folder or you can use it to check the new reports by comparing the new reports with old ones.

### ***How to generate reports not for all centers***

1. Edit "sites.lst" file in the "lst" folder – delete all center that do not need reports. DO NOT delete first string where "all" center is defined;
2. Execute all steps described in the "How to generate reports" paragraph;
3. Copy file Full\_List\_Sites.lst from "lst/template" folder over "sites.lst" file – this step is required to be sure that reports for all centers will be generated in the future.

### **How to generate sample reports**

1. Copy "Soix-Sample.mdb" ("C:\SOIX\Report\_DataBases\Soix-Sample-12-16.mdb") as "Soix.mdb" ("C:\SOIX\Soix\_Report\_System\Data\soix.mdb")
2. Modify "NewReportsInternetDirectory" parameter in "new-soix.ini" file to be sure it points to the folder dedicated for sample reports.
3. Modify "report.ini" file to customize the periods and the type of reports to be generated. Records of current version of "Soix-Sample.mdb" are dated between August and May so for sample reports parameters in "report.ini" files should be the following:  

```
CalculationDate = 6/1/
FoundationDate = 8/1/
QuarterStart = 4
QuarterYearStart =
QuarterEnd = 1
QuarterYearEnd =
MonthStart = 8
MonthYearStart =
MonthEnd = 5
MonthYearEnd =
CumulativeMonthStart = 8
CumulativeYearStart =
CumulativeMonthEnd = 5
CumulativeYearEnd =
```
4. Copy "Sample-Sites.lst" to "Sites.lst"
5. Run "Data\_Calculator.exe". Wait when it finishes.
6. Run "Chart\_Generator.exe". Wait when it finishes.
7. Run "Executive\_Table.exe"
8. Run "DataTable\_Creator.exe"
9. Run "ProcDistrib\_Creator.exe"
10. In "Soix-Sample.mdb", the sample center has USERCODE = "SMP" so sample reports will be created in SMP folder under folder defined by "NewReportsInternetDirectory" parameter in "new-soix.ini" file.
11. Copy the contents of SMP folder to the folder that is designated for the sample reports and is accessible through the SOIX public web-site.

### ***How to add new center***

1. Assign a username and a usercode to the center;
2. Add this information plus the full name of the center to the "Full\_List\_Sites.lst" file (currently it is "C:\SOIX\Soix\_Report\_System\LST\Templates\Full\_List\_Sites.lst");
3. Copy "Full\_List\_Sites.lst" to "Sites.lst" file ("C:\SOIX\Soix\_Report\_System\LST\sites.lst");
4. Run "New\_Center\_Prep" program ("C:\SOIX\General\_Utils\New\_Center\_Prep.exe");
5. Add a link to the home page of the center in one of the member homepages (C:\SOIX\WebSites\SOIX\genrep\rep1.shtml, rep2.shtml, rep3.shtml or rep4.shtml – each file represents a set of states).

### ***How to customize centers pictures***

1. Convert the center's picture to GIF or JPG graphic format;
2. Rename this picture to "Usercode.(GIF or JPG)" (for example, aaz.gif, aba.jpg);
3. Put the picture in the "Img\centers" subfolder of the folder defined by the parameter "TemplateDirectory" in the "new-soix.ini" file (currently it is "C:\SOIX\Soix\_Report\_System\Template\Img\centers");
4. Next time when new reports will be generated this change will take effect. To customize the centers picture before the next report generation the following steps should be done:
  - a) Make a copy of the picture in the center's directory;
  - b) Manually edit the center's main home page (index.html file) to change the link from the default picture (currently it is cherries) to their custom picture. Next time when new reports will be generated all these manual changes will be automatically overwritten, so there is no need to undo these manual changes later.

## ***How to modify the list of CPT codes and procedures***

CPT codes and procedures that are supported by the SOIX report system are located in the "ProcConv.lst" file ("C:\SOIX\Soix\_Report\_System\LST\ProcConv.lst"). So this is the only file that should be modified when the list of CPT codes/procedures is modified.

Let us consider different situations:

1. Names of some of the procedures are changed — just change these names in the "ProcConv.lst". No new strings are added in this case;
2. New CPT codes are added or existing CPT codes are merged (no existing codes were deleted) — add new CPT codes in the file "ProcConv.lst". If some of the CPT codes were merged than do not delete original codes although they are not used by centers anymore — just add new codes that were created after these merges. For example, there were codes 10001 and 10003 and after the merge new code 10005 were created. Codes 10001 and 10003 will not be used by centers anymore (10005 will be used instead) but you should keep these codes (10001 and 10003).
3. If some of the codes were eliminated completely (not merged) or SOIX stopped to support them — just delete the strings where these codes are described.



### ***How to add a corporate member***

1. Assign a username and a usercode to the corporate member;
2. Add this corporate member to the "Corporate\_Members.lst" file (see the description of this file in the "The structure of the report system" section, in the "Corporate\_Members.lst" subsection);
3. Run "New\_Center\_Prepere" program (currently it is C:\SOIX\General\_Utils\New\_Center\_Prepere.exe).

## Appendix

The Appendix section of this manual contains listings of configuration files used by SOIX report system. These listings are the last versions as August 1, [REDACTED].

### **Current version of report.ini file**

;Everything that is located after ";" is comments

```
[Run options]
CalculationDate =          ;1/30/[REDACTED] ;Date that will be used as creation date in
charts and tables                                     ;If there is no date then current date is used

MinNumberOfCases =20          ;Minimal number of cases that allows to generate
reports for the procedure group
Confidence          =1.7      ;Coefficient before sigma to calculate tolerable
limits

FoundationDate      =1/1/[REDACTED]

QuarterlyReports    =yes      ;Yes or No
QuarterStart        =1        ;1,2,3 or 4
QuarterYearStart    =[REDACTED] ;format is yyyy
QuarterEnd          =2        ;1,2,3 or 4
QuarterYearEnd      =[REDACTED] ;format is yyyy

MonthlyReports      =yes      ;Yes or No
MonthStart          =1        ;1 to 12
MonthYearStart      =[REDACTED] ;format is yyyy
MonthEnd            =6        ;1 to 12
MonthYearEnd        =[REDACTED] ;format is yyyy

CumulativeMonthlyReports =yes
CumulativeMonthStart =1
CumulativeYearStart  =[REDACTED]
CumulativeMonthEnd   =6
CumulativeYearEnd    =[REDACTED]

;-----parameters below this line are not supportes at this moment
RunMode              =Auto    ;Auto or Manual

CleanedDBF           =no      ;Yes or No

StandardReport       =no      ;Yes or No
StartDate             =1/1/[REDACTED]
EndDate              =12/31/[REDACTED]
```

**Current version of Executive\_Table.1st file**

ind1\*Nummer1\*TotMR\*Perioperative Compli-<br>cations\*min\*/genrep/ind1.htm  
ind2\*Nummer2\*TotMR\*Delayed in Discharge\*min\*/genrep/ind2.htm  
ind3\*Nummer3\*TotMR>Returns to Surgery\*min\*/genrep/ind3.htm  
ind4\*Nummer4\*TotMR\*Admits to Hospital\*min\*/genrep/ind4.htm  
ind5\*Nummer5\*Denom5\*Pain Episodes Not Relieved<br>\*min\*/genrep/ind5.htm  
  
IND6\*Nummer6\*TotPI\*Care Not Needed After<br> Discharge\*max\*/genrep/ind6.htm  
IND7\*Nummer7\*Denom7\*Pain Controlled After<br> Discharge\*max\*/genrep/ind7.htm  
IND8\*Nummer8\*TotPI\*Satisfied Patients\*max\*/genrep/ind8.htm  
IND9\*Nummer9\*TotPI\*Effective Discharge <br>Instructions\*max\*/genrep/ind9.htm  
IND10\*Nummer10\*TotPI\*Patients Prepared for <br>Self-Care\*max\*/genrep/ind10.htm

## Current version of DataTableItems.lst file

```
---PATIENT DISPOSITION*TotByProc
Patient_Dispos_Normal*Normal
Patient_Dispos_RetainedMore3Hrs*Retained >3 hrs
Patient_Dispos_Hospital*Hospital
Patient_Dispos_Reoperated*Reoperated

---ANESTHESIA*TotByProc
TotEpi*Epidural
TotGen*General
TotSpi*Spinal
TotMAC*MAC
TotBlock*Block
TotTopical*Topical
TotLoc*Local
TotIVC*IV-CON SED
TotOther*Other
TotNone*None

---PAIN AND COMPLICATIONS*
Pain_Complic_NoPain-NoComplic*No Pain, No<br>Complications
Pain_Complic_Pain*Pain
Pain_Complic_Nausea*Nausea
Pain_Complic_Vomiting*Vomiting
Pain_Complic_InabilityToVoid*Inability To Void
Pain_Complic_Bleeding*Bleeding
Pain_Complic_InstabVitalSigns*Instability Of<br>Vital Signs
Pain_Complic_LevelOfConscChanges*Level Of Conscious-<br>ness Changes
Pain_Complic_RespirProblems*Respiratory<br>Problems

---PAIN CONTROL METHODS*
Pain_Control_Meth_PainContrMethExplOnDischarge*Pain Control<br>Methods Explained<br>on Discharge
Pain_Control_Meth_PrescrGivenOnDischarge*Prescription<br>Given On Discharge
Pain_Control_Meth_PainVerb*Pain Verbalized
Pain_Control_Meth_MedOrdered*Medication<br>Ordered<br>(Who Had Pain)
Pain_Control_Meth_MedAdmin*Medication<br>Administered<br>(Who Had Pain)
Pain_Control_Meth_MedAdminAndRefused*Medication<br>Administered<br>And Refused<br>(Who Had Pain)
Pain_Control_Meth_PainRelieved*Pain Relieved<br>(Who Had Pain)

---AFTER LEAVING THE SURGERY CENTER*
After_Leave_Surgery_Problems Might Have*Knew What Problrms<br>Might Have
After_Leave_Surgery_Who_Call*Knew Who To Call
After_Leave_Surgery_Meds_To_Use*Knew What<br>Medicines to Use
After_Leave_Surgery_Had_Appointment*Had an Appointment
After_Leave_Surgery_Had_All_Info*Had All Information

---POSTOPERATIVE PATIENT INTERVIEW:<br>COMPLICATIONS THAT REQUIRED MEDICAL INTERVENTION*
Postop_Pat_Int_Complic_AnyProblem*Any Problem
Postop_Pat_Int_Complic_Nausea*Nausea
Postop_Pat_Int_Complic_Vomiting*Vomiting
Postop_Pat_Int_Complic_Fever*Fever
Postop_Pat_Int_Complic_ProblemUrine*Problem Urinating
Postop_Pat_Int_Complic_Bleeding*Bleeding
Postop_Pat_Int_Complic_SignsOfInf*Signs Of Infection

---PAIN MANAGEMENT AT HOME*
Pain_Manag_Home_PostopPainAtHome*Postop Pain<br>at Home
Pain_Manag_Home_PostopInstrContrPain*Postop Instructed<br>to Control Pain<br>at Home
Pain_Manag_Home_CmplWithInstr*Complied with<br>Instructions

---PAIN RELIEF AT HOME FOR PATIENTS WHO HAD PAIN*TotByProc
Pain_Relief_Home_Completely*Completely
Pain_Relief_Home_Greatly*Greatly
Pain_Relief_Home_Somewhat*Somewhat
Pain_Relief_Home_NotRelieved*Not Relieved

---PERCEIVED QUALITY IN REGISTRATION AND ADMISSION PROCESS*TotByProc
Perceived_Quality_Reg_And_Admis_Excellent*Excellent
Perceived_Quality_Reg_And_Admis_Good*Good
```

Perceived\_Quality\_Reg\_And\_Admis\_Fair\*Fair  
Perceived\_Quality\_Reg\_And\_Admis\_Poor\*Poor  
Perceived\_Quality\_Reg\_And\_Admis\_N-A\*N/A

---PERCEIVED QUALITY AT PREADMISSION TESTING\*TotByProc  
Perceived\_Quality\_Preadmis\_Excellent\*Excellent  
Perceived\_Quality\_Preadmis\_Good\*Good  
Perceived\_Quality\_Preadmis\_Fair\*Fair  
Perceived\_Quality\_Preadmis\_Poor\*Poor  
Perceived\_Quality\_Preadmis\_N-A\*N/A

---PERCEIVED QUALITY IN RECOVERY STAGE IN THE CENTER\*TotByProc  
Perceived\_Quality\_Rec\_Stage\_Excellent\*Excellent  
Perceived\_Quality\_Rec\_Stage\_Good\*Good  
Perceived\_Quality\_Rec\_Stage\_Fair\*Fair  
Perceived\_Quality\_Rec\_Stage\_Poor\*Poor  
Perceived\_Quality\_Rec\_Stage\_N-A\*N/A

## Current version of Indicators.lst file

```
;General Indicators
---ind*ind2*General Indicators*%Average% Records: %TotMRAllSites%, %You%:
%TotMRThisSite%. %Average% Interviews: %TotPIAllSites%, %You%: %TotPIThisSite%.
ind1*Nummer1*TotMR*ind1
ind2*Nummer2*TotMR*ind2
ind3*Nummer3*TotMR*ind3
ind4*Nummer4*TotMR*ind4
ind5*Nummer5*Denom5*ind5^^
IND6*Nummer6*TotPI*IND6
IND7*Nummer7*Denom7*IND7^^
IND8*Nummer8*TotPI*IND8
IND9*Nummer9*TotPI*IND9
IND10*Nummer10*TotPI*IND10

;ind1 by payor
---payor*payor2*Complications by Payor*%Average% Average Complication Rate:
%Ind1AllSites%. %You%: %Ind1ThisSite%.
Care_Ind1*Care*TotCare*Medicare
Aid_Ind1*Aid*TotAid*Medicaid
Com_Ind1*Com*TotCom*Non-Capitated
Cap_Ind1*Cap*TotCap*Capitated
Uni_Ind1*Uni*TotUni*Uninsured
Wor_Ind1*Wor*TotWor*Workmens Comp
Oth_Ind1*Oth*TotOth*Other

;ind1 by anesthesia
---anest*anest2*Complications by Anesthesia*%Average% Average Complication Rate:
%Ind1AllSites%. %You%: %Ind1ThisSite%.
EPI_Ind1*EPI*TotEPI*Epidural
GEN_Ind1*GEN*TotGEN*General
Spi_Ind1*Spi*TotSpi*Spinal
MAC_Ind1*MAC*TotMAC*MAC
Block_Ind1*Block*TotBlock*Block
Topical_Ind1*Topical*TotTopical*Topical
Loc_Ind1*Loc*TotLoc*Local
IVC_Ind1*IVC*TotIVC*IV-CON SED
Other_Ind1*Other*TotOther*Other
None_Ind1*None*TotNone*None

;Surgery Time
---*surgttime2*Surgery Time*Surgery Time (min)||%Average% average:
%Surgttime AvgAllSites% min. %You%: %Surgttime AvgThisSite% min.
SURGTIME-0-30V*SURGTIME-0-30*SURGTIME_TOT*0-29
SURGTIME-30-60V*SURGTIME-30-60*SURGTIME_TOT*30-59
SURGTIME-60-90V*SURGTIME-60-90*SURGTIME_TOT*60-89
SURGTIME-90-120V*SURGTIME-90-120*SURGTIME_TOT*90-119
SURGTIME-120-150V*SURGTIME-120-150*SURGTIME_TOT*120-149
SURGTIME-150-180V*SURGTIME-150-180*SURGTIME_TOT*150-179
SURGTIME-180-210V*SURGTIME-180-210*SURGTIME_TOT*180-209
SURGTIME-210-240V*SURGTIME-210-240*SURGTIME_TOT*210-239
SURGTIME-240+V*SURGTIME-240+*SURGTIME_TOT*240+

;Recovery Time
---*recovtime2*Recovery Time*Recovery Time (min)||%Average% average:
%Rectime AvgAllSites% min. %You%: %Rectime AvgThisSite% min.
RECTIME-0-30V*RECTIME-0-30*RECTIME_TOT*0-29
RECTIME-30-60V*RECTIME-30-60*RECTIME_TOT*30-59
RECTIME-60-90V*RECTIME-60-90*RECTIME_TOT*60-89
RECTIME-90-120V*RECTIME-90-120*RECTIME_TOT*90-119
RECTIME-120-150V*RECTIME-120-150*RECTIME_TOT*120-149
RECTIME-150-180V*RECTIME-150-180*RECTIME_TOT*150-179
RECTIME-180-210V*RECTIME-180-210*RECTIME_TOT*180-209
RECTIME-210-240V*RECTIME-210-240*RECTIME_TOT*210-239
RECTIME-240+V*RECTIME-240+*RECTIME_TOT*240+

;Age Distribution
---*Age_Distribution2*Age Distribution*Age (years)||%Average% average:
%Age_Distrib AvgAllSites% yrs. %You%: %Age_Distrib AvgThisSite% yrs.
Age_Distrib_0-14V*Age_Distrib_0-14*Age_Distrib_Tot*0-14
Age_Distrib_15-24V*Age_Distrib_15-24*Age_Distrib_Tot*15-24
```

Age\_Distrib\_25-34\*Age\_Distrib\_25-34\*Age\_Distrib\_Tot\*4  
Age\_Distrib\_35-44\*Age\_Distrib\_35-44\*Age\_Distrib\_Tot\*4  
Age\_Distrib\_45-54\*Age\_Distrib\_45-54\*Age\_Distrib\_Tot\*4  
Age\_Distrib\_55-64\*Age\_Distrib\_55-64\*Age\_Distrib\_Tot\*4  
Age\_Distrib\_65-74\*Age\_Distrib\_65-74\*Age\_Distrib\_Tot\*4  
Age\_Distrib\_75-84\*Age\_Distrib\_75-84\*Age\_Distrib\_Tot\*4  
Age\_Distrib\_85+\*Age\_Distrib\_85+\*Age\_Distrib\_Tot\*4

---

**Current version of LogMessages.lst file**

ReportStart	=	Report Start
ReportEnd	=	Report End
KillTreeMsg	=	Tree was overwritten or deleted
KillFileMsg	=	File was overwritten or deleted
QuarterReportStart	=	Quarter Report is Starting
QuarterReportEnd	=	Quarter Report is Completed
MonthReportStart	=	Monthly Report is Starting
MonthReportEnd	=	Monthly Report is Completed
MonthCumulReportStart	=	Cumul Monthly Report is Starting
MonthCumulReportEnd	=	Cumul Monthly Report is Completed
StandardReportStart	=	Standard Report is Starting
StandardReportEnd	=	Standard Report is Completed



## Current version of Comparison\_table.lst file

----		
TotMR*	*	Number of Patients*
---Time (Minutes)*		
SurgTime_Avg*	*	Time For Procedure*
RecTime_Avg*	*	Time For Recovery*
IntTime_Avg*	*	Time For Patient Interview*
----		
---Problems Before Leaving Surgery Center*		
Patient_Dispos_Normal*	TotMR*	Percent Normal Discharge*
Pain_Complic_NoPain-NoComplic*	TotMR*	Percent without Problems*
Pain_Control_Meth_PainVerb*	TotMR*	Percent with Post Operative Pain*
Pain_Control_Meth_MedOrdered*	Pain_Control_Meth_PainVerb*	&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;& Percent Medications
Ordered*		
Pain_Control_Meth_PainRelieved*	Pain_Control_Meth_PainVerb*	&nbsp;&nbsp;&nbsp;&nbsp;& Percent Pain Relieved*
Pain_Control_Meth_PrescrGivenOnDischarge*	TotMR*	Percent Pain Prescription Given*
Pain_Control_Meth_PainContrMethExplOnDischarge*	TotMR*	Percent Pain Control Methods
Explained*		
----		
---After Leaving the Surgery Center*		
After_Leave_Surgery_Problems_Might_Have*	TotPI*	Percent That Knew What Problems They
Might Have*		
After_Leave_Surgery_Who_Call*	TotPI*	Percent Knew Who to Call*
After_Leave_Surgery_Meds_To_Use*	TotPI*	Percent Knew Medications to Control
Pain*		
After_Leave_Surgery_Had_Appointment*	TotPI*	Percent with Post Operative
Appointment*		
After_Leave_Surgery_Had_All_Info*	TotPI*	Percent Who Had Self Care Info*
----		
---Problems at Home*		
Postop_Pat_Int_Complic_AnyProblem*	TotPI*	Percent with Problem Related to
Procedure*		
Postop_Pat_Int_Complic_Nausea*	TotPI*	&nbsp;&nbsp;&nbsp;&nbsp;& Nausea*
Postop_Pat_Int_Complic_Vomiting*	TotPI*	&nbsp;&nbsp;&nbsp;& Vomiting*
Postop_Pat_Int_Complic_Fever*	TotPI*	&nbsp;&nbsp;&nbsp;& Fever*
Postop_Pat_Int_Complic_ProblemUrine*	TotPI*	&nbsp;&nbsp;&nbsp;& Difficulty Urinating*
Postop_Pat_Int_Complic_Bleeding*	TotPI*	&nbsp;&nbsp;&nbsp;& Bleeding*
Postop_Pat_Int_Complic_SignsOfInf*	TotPI*	&nbsp;&nbsp;&nbsp;& Signs of Infection*
Pain_Manag_Home_PostopPainAtHome*	TotPI*	Percent Bothered by Pain*
Pain_Manag_Home_PostopInstrContrPain*	Pain_Manag_Home_PostopPainAtHome*	&nbsp;&nbsp;&nbsp;& Percent with Instruction
about Pain*		
Pain_Manag_Home_ComplWithInstr*	Pain_Manag_Home_PostopPainAtHome*	&nbsp;&nbsp;&nbsp;& Percent Following
Instructions*		
Pain_Relief_Home_Completely*	Pain_Manag_Home_PostopPainAtHome*	&nbsp;&nbsp;&nbsp;& Percent Completely
Relieved*		
----		
---Perceived Quality of Care*		
Nummer8*	TotPI*	Percent Excellent Quality*
Perceived_Quality_Reg_And_Adms_Excellent*	TotPi*	Percent Excellent Registration and
Admission*		
Perceived_Quality_Preadmis_Excellent*	TotPI*	Percent Excellent Preadmission
Testing*		
Perceived_Quality_Rec_Stage_Excellent*	TotPI*	Percent Excellent Recovery Stage*

29888\* Arthroscopic ACL Repair  
67916\* Blephroplasty  
67921\* Blephroplasty  
19325\* Breast augmentation  
19120\* Breast Biopsy  
19318\* Breast reduction  
31622\* Bronchoscopy  
31625\* Bronchoscopy  
28290\* Bunionectomy  
28292\* Bunionectomy  
28293\* Bunionectomy  
28294\* Bunionectomy  
28296\* Bunionectomy  
28297\* Bunionectomy  
28298\* Bunionectomy  
28299\* Bunionectomy  
29848\* Carpal Tunnel  
64721\* Carpal Tunnel  
66830\* Cataract removal  
66840\* Cataract removal  
66850\* Cataract removal  
66852\* Cataract removal  
66920\* Cataract removal  
66930\* Cataract removal  
66940\* Cataract removal  
66983\* Cataract removal  
66984\* Cataract removal  
45378\* Colonoscopy, diagnostic  
45380\* Colonoscopy with biopsy  
45384\* Colonoscopy with biopsy  
45385\* Colonoscopy with biopsy  
52000\* Cystoscopy  
52005\* Cystoscopy  
52007\* Cystoscopy  
52204\* Cystoscopy  
52281\* Cystoscopy  
58120\* D&C/Hysteroscopy  
58558\* D&C/Hysteroscopy  
43235\* EGD  
43239\* EGD with biopsy  
43248\* EGD with dilation  
43249\* EGD with dilation  
30520\* ENT- Septoplasty  
31255\* ENT Sinus endoscopy  
42820\* ENT- T&A < 12  
42826\* ENT- Tonsillectomy > 12  
69436\* ENT- Tubes  
69631\* ENT- Tympanoplasty  
49320\* GYN laparoscopy  
58660\* GYN laparoscopy  
58670\* GYN laparoscopy  
58671\* GYN laparoscopy  
49505\* Hernia repair  
49585\* Hernia repair  
29870\* Knee Arthroscopy  
29877\* Knee Arthroscopy  
29881\* Knee Arthroscopy  
29882\* Knee Arthroscopy  
29884\* Knee Arthroscopy  
47562\* Laparoscopic cholecystectomy  
47564\* Laparoscopic cholecystectomy  
19125\* Needle localization breast biopsy  
62310\* Pain management -epidural  
62311\* Pain management -epidural  
64510\* Pain management -epidural  
20550\* Pain management -injection  
55700\* Prostate biopsy  
30400\* Rhinoplasty  
15828\* Rhytidectomy  
23412\* Shoulder Arthroplasty (open)

23450\* Shoulder Arthroplasty (open)  
23455\* Shoulder Arthroplasty (open)  
29815\* Shoulder Arthroscopy, dx or tx  
29819\* Shoulder Arthroscopy, dx or tx  
29820\* Shoulder Arthroscopy, dx or tx  
29821\* Shoulder Arthroscopy, dx or tx  
29822\* Shoulder Arthroscopy, dx or tx  
29823\* Shoulder Arthroscopy, dx or tx  
29825\* Shoulder Arthroscopy, dx or tx  
29826\* Shoulder Arthroscopy, dx or tx

56340\* Laparoscopic cholecystectomy  
56342\* Laparoscopic cholecystectomy  
56300\* GYN laparoscopy  
56302\* GYN laparoscopy  
56304\* GYN laparoscopy  
56351\* D&C/Hysteroscopy  
62275\* Pain management -epidural  
62278\* Pain management -epidural  
62289\* Pain management -epidural  
62298\* Pain management -epidural

## Current version of Sites.1st file

;"ALL" MUST BE FIRST

ALL*	All Centers*	
aaa*	Central Indiana Orthopedic Surgery Center*	daniel
aab*	The Laser and Surgery Center*	helen
aac*	Genesis Surgery Center, LLC*	debbie
aad*	Valley Ambulatory Surgery Center*	jones
aae*	Roper West Ashley Surgery Center*	shannon
aaf*	UPMC Monroeville Ambulatory Surgery*	jennifer
aag*	Specialists Ambulatory Surgery Center*	johnson
aah*	Elliot 1-DAY Surgery Center*	steve
aai*	Endoscopy Center of Oakridge, LLC*	kenny
aak*	Aestique Medical Center*	nancy
aal*	The Clinic Surgery and Eye Center, LLP*	matthew
aam*	Sullivan Centre For Plastic & Reconstructive Surgery*	nelson
aan*	Abington Surgical Center*	allen
aap*	Roseburg Surgicenter, LTD*	tinker
aaq*	Proctology Associates*	lime
aar*	University Suburban Health Center*	peter
aas*	Lincoln Surgery Center*	karen
aat*	Gastroenterology Associates, Inc. & The Endoscopy Center*	elaine
aau*	Sandusky Plastic Surgery*	tom
aav*	Decatur Ambulatory Surgery Center*	brian
aaw*	The Bay Area Surgery Center*	jim
aax*	Center for Special Surgery*	carry
aay*	The Kirklin Clinic Ambulatory Surgery Center*	terry
aaz*	Jefferson Memorial Surgery Center*	tonya
aba*	Ohio Surgery Center, LTD*	gene
abb*	Helix Health Surgi Center at Pasadena*	paper
abc*	EYE HEALTH ASSOCIATES OF WNY, PC*	weight
abd*	Grand Island Surgery Center*	program
abe*	Zanesville Surgery Center*	phone
abf*	WILLIAM E BECKER MD PA ASC*	doctor
abg*	Maryville Surgical Center*	desk
abh*	Central Utah Surgical Center*	billy
abi*	Mt. Ogden Surgical Center*	rebecca
abj*	Davis Surgical Center*	ben
abk*	Great Basin Surgical Center*	plug
abl*	Minimally Invasive Surgery Center*	sam
abm*	Plastikos Surgery Center*	summer
abn*	Endoscopy Center of Pennsylvania*	pencil
abo*	Fox Valley Orthopaedic Institute*	apple
abp*	Surgiplex*	winter
abq*	Northwest Surgery Center, LLC*	sand
abr*	Mercy Anderson Ambulatory Surgery*	fall
abs*	Urology Specialty & Surgery Ctr of SW LA*	speak
abt*	Commonwealth Orthopaedics*	sing
abu*	Virginia Eye Institute, Inc*	spring
abv*	Reston Hospital Center*	trident
abw*	GI Endoscopy Center*	jacket
abx*	Blake Woods Medical Park Surgery Center*	alan
aby*	Norfolk Surgery Center*	jenny
abz*	The Cookeville Surgery Center*	mike
aca*	The Ambulatory Care Center*	timon
acb*	Southern Surgery Center*	hammer
acc*	Findlay Surgery Center*	nail
ace*	Central Plains CL Surgery & Diagnostic*	indian
acf*	Frederick Surgical Center*	soda
acg*	Surgery Center of Ft. Collins*	play
ach*	Straith Clinic, PC*	rest
aci*	Effingham Ambulatory Surgery Center*	trip
aza*	Flagstaff Outpatient Surgery Center*	decker
lva*	Lakeview Medical Center, Inc.*	stovall
mfa*	Surgery Center of Southern Oregon, LLC*	diana
msa*	The Microsurgery Center*	barnes
mva*	Mississippi Valley Surgery Center, LLC*	andrews
qca*	Quad City Ambulatory Surgery Center*	millar
rsa*	Virginia Ambulatory Surgery Center*	thomas
sba*	Surgicenter of Baltimore*	cornell
sca*	South Coast Surgery Center, LLC*	barker



## Current version of Stage1.1st file

```
;Last Updated: 04/14/2004

DOP*
PAYOR*
DISPOSITIO*
RECTIME*
SURGTIME*
INTTIME*
AGE*

;Anesthesia*Anesthesia

;-----
;Miscellaneous (PATINT2)
;INTTIME2*IIf(TimeDiff([START],[ENDTIME])<0,0,TimeDiff([START],[ENDTIME]))
Disp3*IIf(DISPOSITIO="3",True,False)
Disp2*IIf(DISPOSITIO="2",True,False)

;-----
;Miscellaneous (MEDREC)
Anesthesia3*Left(Anesthesia,3)
PAYOR3*Left(PAYOR,3)
PV*IIf(pv1="Y",True,False)
PR*IIf(pr1="Y",True,False)
Ind2Threshold*

;-----
;General Indicators (PATINT2)
Nummer1_1*IIf(Pain_Complic_Nausea_1 OR Pain_Complic_Vomiting_1 OR Pain_Complic_InabilityToVoid_1 OR
Pain_Complic_Bleeding_1 OR Pain_Complic_InstabVitalSigns_1 OR Pain_Complic_LevelOfConscChanges_1 OR
Pain_Complic_RespirProblems_1,True,False)
Nummer6_1*IIf(Not(IIf(Postop_Pat_Int_Complic_Nausea_1 OR Postop_Pat_Int_Complic_Vomiting_1 OR
Postop_Pat_Int_Complic_Fever_1 OR Postop_Pat_Int_Complic_ProblemUrine_1 OR
Postop_Pat_Int_Complic_Bleeding_1 OR Postop_Pat_Int_Complic_SignsOfInf_1,True,False)) AND
Not(IsNull(PI_IDN)),True,False)
Nummer7_1*IIf((PATINT2.inspain="Y") And Not(Not(folm="Y") and Not(folcom="Y")) And (usem="Y" Or
inscom="Y") And (folm="Y" Or folcom="Y") And (Left(relief,5)="compl") And (phome="Y"),True,False)
Denom7_1*IIf(phome="Y" and Not(Not(folm="Y") and Not(folcom="Y")),True,False)
Nummer8_1*IIf((qregadm="Excellent" OR qregadm="N/A") And (qpreadm="Excellent" OR qpreadm="N/A") And
(qrecov="Excellent" OR qrecov="N/A") AND (NOT (qregadm="N/A" AND qpreadm="N/A" AND
qrecov="N/A")),True,False)
Nummer9_1*IIf(Left(prob,1)="Y" And Left(whocall,1)="Y" And Left(med,1)="Y" And
Left(app,1)="Y",True,False)
Nummer10_1*IIf(Left(Inf,1)="Y" And Left(prob,1)="Y" And Left(whocall,1)="Y" And Left(med,1)="Y" And
Left(app,1)="Y",True,False)

;-----
;Pain and Complications (MEDREC)
Pain_Complic_Pain_1*IIf(LEFT(PAIN1,1)="Y" OR LEFT(PAIN2,1)="Y" OR LEFT(PAIN3,1)="Y",True,False)
Pain_Complic_Nausea_1*IIf(LEFT(NAUS1,1)="Y" OR LEFT(NAUS2,1)="Y" OR LEFT(NAUS3,1)="Y",True,False)
Pain_Complic_Vomiting_1*IIf(LEFT(VOM1,1)="Y" OR LEFT(VOM2,1)="Y" OR LEFT(VOM3,1)="Y",True,False)
Pain_Complic_InabilityToVoid_1*IIf(LEFT(INVOID1,1)="Y" OR LEFT(INVOID2,1)="Y" OR
LEFT(INVOID3,1)="Y",True,False)
Pain_Complic_Bleeding_1*IIf(LEFT(MEDREC.BLEED1,1)="Y" OR LEFT(MEDREC.BLEED2,1)="Y" OR
LEFT(MEDREC.BLEED3,1)="Y",True,False)
Pain_Complic_InstabVitalSigns_1*IIf(LEFT(IVS1,1)="Y" OR LEFT(IVS2,1)="Y" OR
LEFT(IVS3,1)="Y",True,False)
Pain_Complic_LevelOfConscChanges_1*IIf(LEFT(LOC1,1)="Y" OR LEFT(LOC2,1)="Y" OR
LEFT(LOC3,1)="Y",True,False)
Pain_Complic_RespirProblems_1*IIf(LEFT(RESPI1,1)="Y" OR LEFT(RESPI2,1)="Y" OR
LEFT(RESPI3,1)="Y",True,False)

;-----
;Pain Control Methods (MEDREC)
Pain_Control_Meth_PrescrGivenOnDischarge_1*IIf(LEFT(PPG,1)="Y",True,False)
Pain_Control_Meth_PainContrMethExplOnDischarge_1*IIf(LEFT(PCME,1)="Y",True,False)

Pain_Control_Meth_PainVerb_1*IIf(LEFT(PV1,1)="Y",True,False)
Pain_Control_Meth_MedOrdered_1*IIf(LEFT(MO1,1)="Y",True,False) AND Pain_Control_Meth_PainVerb_1
Pain_Control_Meth_MedAdmin_1*IIf(LEFT(MA1,1)="Y",True,False) AND Pain_Control_Meth_PainVerb_1
Pain_Control_Meth_MedAdminAndRefused_1*IIf(LEFT(MA1,1)="R",True,False) AND
Pain_Control_Meth_PainVerb_1
Pain_Control_Meth_PainRelieved_1*IIf(LEFT(PRI,1)="Y",True,False) AND Pain_Control_Meth_PainVerb_1

;-----
;After Leaving the Surgery Center (PATINT2)
After_Leave_Surgery_Problems_Might_Have_1*IIf(Left(Prob,1)="Y",True,False)
After_Leave_Surgery_Who_Call_1*IIf(Left(Whocall,1)="Y",True,False)
After_Leave_Surgery_Meds_To_Use_1*IIf(Left(Med,1)="Y",True,False)
After_Leave_Surgery_Had_Appointment_1*IIf(Left(App,1)="Y",True,False)
After_Leave_Surgery_Had_All_Info_1*IIf(Left(Inf,1)="Y",True,False)

;-----
;Postoperative Complications (PATINT2)
Postop_Pat_Int_Complic_Nausea_1*IIf(PATINT2.nausea3="Y" Or PATINT2.nausea4="Y" Or PATINT2.nausea5="Y"
Or PATINT2.nausea6="Y" Or PATINT2.nausea7="Y",True,False)
Postop_Pat_Int_Complic_Vomiting_1*IIf(PATINT2.vomit3="Y" Or PATINT2.vomit4="Y" Or PATINT2.vomit5="Y"
Or PATINT2.vomit6="Y" Or PATINT2.vomit7="Y",True,False)
```

```

Postop_Pat_Int_Complic_Fever_1*IIf(PATINT2.fever3="Y" Or PATINT2.fever4="Y" Or PATINT2.fever5="Y" Or
PATINT2.fever6="Y" Or PATINT2.fever7="Y",True,False)
Postop_Pat_Int_Complic_ProblemUrine_1*IIf(PATINT2.urine3="Y" Or PATINT2.urine4="Y" Or
PATINT2.urine5="Y" Or PATINT2.urine6="Y" Or PATINT2.urine7="Y",True,False)
Postop_Pat_Int_Complic_Bleeding_1*IIf(PATINT2.bleed3="Y" Or PATINT2.bleed4="Y" Or PATINT2.bleed5="Y"
Or PATINT2.bleed6="Y" Or PATINT2.bleed7="Y",True,False)
Postop_Pat_Int_Complic_SignsOfInf_1*IIf(PATINT2.infec3="Y" Or PATINT2.infec4="Y" Or PATINT2.infec5="Y"
Or PATINT2.infec6="Y" Or PATINT2.infec7="Y",True,False)

;-----
;Postoperative Complications (PATINT2) -- Old Version
;Postop_Pat_Int_Complic_Nausea_1*IIf(Left(Nausea,1)="Y",True,False)
;Postop_Pat_Int_Complic_Vomiting_1*IIf(Left(Vomit,1)="Y",True,False)
;Postop_Pat_Int_Complic_Fever_1*IIf(Left(Fever,1)="Y",True,False)
;Postop_Pat_Int_Complic_ProblemUrine_1*IIf(Left(Urine,1)="Y",True,False)
;Postop_Pat_Int_Complic_Bleeding_1*IIf(Left(Patint2.Bleed,1)="Y",True,False)
;Postop_Pat_Int_Complic_SignsOfInf_1*IIf(Left(Infec,1)="Y",True,False)

;-----
;Pain Management at Home (PATINT2)
Pain_Manag_Home_PostopPainAtHome_1*IIf(Left(Phome,1)="Y",True,False)
Pain_Manag_Home_PostopInstrContrPain_1*IIf(Left(Phome,1)="Y" AND Left(Inspain,1)="Y",True,False)
Pain_Manag_Home_ComplWithInstr_1*IIf(Left(Phome,1)="Y" AND (Left(Folm,1)="Y" OR Left(Folcom,1)="Y")
AND IsNull(Foloth),True,False)

;-----
;Pain Relief at Home for Patients Who Had Pain (PATINT2)
Pain_Relief_Home_Completely_1*IIf(Left(Phome,1)="Y" AND Left(Relief,3)="Com",True,False)
Pain_Relief_Home_Greatly_1*IIf(Left(Phome,1)="Y" AND Left(Relief,3)="Gre",True,False)
Pain_Relief_Home_Somewhat_1*IIf(Left(Phome,1)="Y" AND Left(Relief,3)="Som",True,False)
Pain_Relief_Home_NotRelieved_1*IIf(Left(Phome,1)="Y" AND Left(Relief,3)="Not",True,False)

;-----
;Perceived Quality in Registr and Admission Process (PATINT2)
Perceived_Quality_Reg_And_Admis_Excellent_1*IIf(Left(Qregadm,3)="Exc",True,False)
Perceived_Quality_Reg_And_Admis_Good_1*IIf(Left(Qregadm,3)="Goo",True,False)
Perceived_Quality_Reg_And_Admis_Fair_1*IIf(Left(Qregadm,3)="Fai",True,False)
Perceived_Quality_Reg_And_Admis_Poor_1*IIf(Left(Qregadm,3)="Poo",True,False)
Perceived_Quality_Reg_And_Admis_N-A_1*IIf(Left(Qregadm,3)="N/A",True,False)

;-----
;Perceived Quality at Preadmission Testing (PATINT2)
Perceived_Quality_Preadmis_Excellent_1*IIf(Left(Qpreadm,3)="Exc",True,False)
Perceived_Quality_Preadmis_Good_1*IIf(Left(Qpreadm,3)="Goo",True,False)
Perceived_Quality_Preadmis_Fair_1*IIf(Left(Qpreadm,3)="Fai",True,False)
Perceived_Quality_Preadmis_Poor_1*IIf(Left(Qpreadm,3)="Poo",True,False)
Perceived_Quality_Preadmis_N-A_1*IIf(Left(Qpreadm,3)="N/A",True,False)

;-----
;Perceived Quality in Recovery stage in the Center (PATINT2)
Perceived_Quality_Rec_Stage_Excellent_1*IIf(Left(Qrecov,3)="Exc",True,False)
Perceived_Quality_Rec_Stage_Good_1*IIf(Left(Qrecov,3)="Goo",True,False)
Perceived_Quality_Rec_Stage_Fair_1*IIf(Left(Qrecov,3)="Fai",True,False)
Perceived_Quality_Rec_Stage_Poor_1*IIf(Left(Qrecov,3)="Poo",True,False)
Perceived_Quality_Rec_Stage_N-A_1*IIf(Left(Qrecov,3)="N/A",True,False)

;-----
;Age Distribution (MEDREC)
Age_Distrib_0-14_1*IIf(AGE>0 AND AGE<15,True,False)
Age_Distrib_15-24_1*IIf(AGE>=15 AND AGE<25,True,False)
Age_Distrib_25-34_1*IIf(AGE>=25 AND AGE<35,True,False)
Age_Distrib_35-44_1*IIf(AGE>=35 AND AGE<45,True,False)
Age_Distrib_45-54_1*IIf(AGE>=45 AND AGE<55,True,False)
Age_Distrib_55-64_1*IIf(AGE>=55 AND AGE<65,True,False)
Age_Distrib_65-74_1*IIf(AGE>=65 AND AGE<75,True,False)
Age_Distrib_75-84_1*IIf(AGE>=75 AND AGE<85,True,False)
Age_Distrib_85+_1*IIf(AGE>=85 AND AGE<=120,True,False)
Age_Distrib_Tot_1*IIf(AGE>0 AND AGE<=120,True,False)

;-----
;Recovery Time Distribution (MEDREC)
RECTIME-0-30_1*IIf(RECTIME>0 and RECTIME<30,True,False)
RECTIME-30-60_1*IIf(RECTIME>=30 and RECTIME<60,True,False)
RECTIME-60-90_1*IIf(RECTIME>=60 and RECTIME<90,True,False)
RECTIME-90-120_1*IIf(RECTIME>=90 and RECTIME<120,True,False)
RECTIME-120-150_1*IIf(RECTIME>=120 and RECTIME<150,True,False)
RECTIME-150-180_1*IIf(RECTIME>=150 and RECTIME<180,True,False)
RECTIME-180-210_1*IIf(RECTIME>=180 and RECTIME<210,True,False)
RECTIME-210-240_1*IIf(RECTIME>=210 and RECTIME<240,True,False)
RECTIME-240+_1*IIf(RECTIME>=240 ,True,False)
RECTIME_TOT_1*IIf(RECTIME>0 ,True,False)

;-----
;Surgery Time Distribution (MEDREC)
SURGTIME-0-30_1*IIf(SURGTIME>0 and SURGTIME<30,True,False)
SURGTIME-30-60_1*IIf(SURGTIME>=30 and SURGTIME<60,True,False)
SURGTIME-60-90_1*IIf(SURGTIME>=60 and SURGTIME<90,True,False)
SURGTIME-90-120_1*IIf(SURGTIME>=90 and SURGTIME<120,True,False)
SURGTIME-120-150_1*IIf(SURGTIME>=120 and SURGTIME<150,True,False)
SURGTIME-150-180_1*IIf(SURGTIME>=150 and SURGTIME<180,True,False)
SURGTIME-180-210_1*IIf(SURGTIME>=180 and SURGTIME<210,True,False)
SURGTIME-210-240_1*IIf(SURGTIME>=210 and SURGTIME<240,True,False)
SURGTIME-240+_1*IIf(SURGTIME>=240 ,True,False)
SURGTIME_TOT_1*IIf(SURGTIME>0 ,True,False)

```

```

;-----
;Header
TotMR*      Long*      Count(Site)**
TotPI*      Long*      Count(PI_IDN)**

;-----
;General Indicators (MEDREC)
Nummer1*    Long*      Count(IIf(Nummer1_1,True,Null))**
Nummer2*    Long*      Count(IIf(RECTIME>Ind2Threshold,True,Null))**
Nummer3*    Long*      Count(IIf(Disp3,True,Null))**
Nummer4*    Long*      Count(IIf(Disp2,True,Null))**
Nummer5*    Long*      Count(IIf(PV And Not(PR),True,Null))**
Denom5*     Long*      Count(IIf(PV,True,Null))**

;-----
;General Indicators (PATINT2)
Nummer6*    Long*      Count(IIf(Nummer6_1,True,Null))**
Nummer7*    Long*      Count(IIf(Nummer7_1,True,Null))**
Denom7*     Long*      Count(IIf(Denom7_1,True,Null))**
Nummer8*    Long*      Count(IIf(Nummer8_1,True,Null))**
Nummer9*    Long*      Count(IIf(Nummer9_1,True,Null))**
Nummer10*   Long*      Count(IIf(Nummer10_1,True,Null))**

;-----
;Complications by Payor (MEDREC)
TotCare*    Long*      Count(IIf(PAYOR="Medicare",True,Null))**
Care*       Long*      Count(IIf(PAYOR="Medicare" AND Nummer1_1,True,Null))**
TotAid*     Long*      Count(IIf(PAYOR="Medicaid",True,Null))**
Aid*        Long*      Count(IIf(PAYOR="Medicaid" AND Nummer1_1,True,Null))**
TotCom*     Long*      Count(IIf(Payor3="Com",True,Null))**
Com*        Long*      Count(IIf(Payor3="Com" AND Nummer1_1,True,Null))**
TotCap*     Long*      Count(IIf(Payor3="Cap",True,Null))**
Cap*        Long*      Count(IIf(Payor3="Cap" AND Nummer1_1,True,Null))**
TotUni*     Long*      Count(IIf(Payor3="Uni",True,Null))**
Uni*        Long*      Count(IIf(Payor3="Uni" AND Nummer1_1,True,Null))**
TotWor*     Long*      Count(IIf(Payor3="Wor",True,Null))**
Wor*        Long*      Count(IIf(Payor3="Wor" AND Nummer1_1,True,Null))**
TotOth*     Long*      Count(IIf(Payor3="Oth",True,Null))**
Oth*        Long*      Count(IIf(Payor3="Oth" AND Nummer1_1,True,Null))**

;-----
;Complications by Anesthesia (MEDREC)
TotEpi*     Long*      Count(IIf(Anesthesia3="Epi",True,Null))**
Epi*        Long*      Count(IIf(Anesthesia3="Epi" AND Nummer1_1,True,Null))**
TotGen*     Long*      Count(IIf(Anesthesia3="Gen",True,Null))**
Gen*        Long*      Count(IIf(Anesthesia3="Gen" AND Nummer1_1,True,Null))**
TotSpi*     Long*      Count(IIf(Anesthesia3="Spi",True,Null))**
Spi*        Long*      Count(IIf(Anesthesia3="Spi" AND Nummer1_1,True,Null))**
TotMAC*     Long*      Count(IIf(Anesthesia3="MAC",True,Null))**
MAC*        Long*      Count(IIf(Anesthesia3="MAC" AND Nummer1_1,True,Null))**
TotBlock*   Long*      Count(IIf(Anesthesia3="Blo",True,Null))**
Block*      Long*      Count(IIf(Anesthesia3="Blo" AND Nummer1_1,True,Null))**
TotTopical* Long*      Count(IIf(Anesthesia3="Top",True,Null))**
Topical*    Long*      Count(IIf(Anesthesia3="Top" AND Nummer1_1,True,Null))**
TotLoc*     Long*      Count(IIf(Anesthesia3="Loc",True,Null))**
Loc*        Long*      Count(IIf(Anesthesia3="Loc" AND Nummer1_1,True,Null))**
TotIVC*     Long*      Count(IIf(Anesthesia3="IV-",True,Null))**
IVC*        Long*      Count(IIf(Anesthesia3="IV-" AND Nummer1_1,True,Null))**
TotOther*   Long*      Count(IIf(Anesthesia3="Oth",True,Null))**
Other*      Long*      Count(IIf(Anesthesia3="Oth" AND Nummer1_1,True,Null))**
TotNone*    Long*      Count(IIf(Anesthesia3="Non",True,Null))**
None*       Long*      Count(IIf(Anesthesia3="Non" AND Nummer1_1,True,Null))**

;-----
;Pain Disposition (MEDREC)
Patient_Dispos_RetainedMore3Hrs* Long*      Count(IIf(DISPOSITIO="1",True,Null))**
Patient_Dispos_Hospital*          Long*      Count(IIf(DISPOSITIO="2",True,Null))**
Patient_Dispos_Reoperated*        Long*      Count(IIf(DISPOSITIO="3",True,Null))**
Patient_Dispos_Normal*            Long*      Count(IIf(DISPOSITIO="4",True,Null))**

;-----
;Pain and Complications (MEDREC)
Pain_Complic_NoPain-NoComplic*      Long*      Count(IIf(Pain_Complic_Pain_1 OR Pain_Complic_Nausea_1
OR Pain_Complic_Vomiting_1 OR Pain_Complic_InabilityToVoid_1 OR Pain_Complic_Bleeding_1 OR
Pain_Complic_InstabVitalSigns_1 OR Pain_Complic_LevelOfConscChanges_1 OR
Pain_Complic_RespirProblems_1,Null,True))**
Pain_Complic_Pain*                  Long*      Count(IIf(Pain_Complic_Pain_1,True,Null))**
Pain_Complic_Nausea*                 Long*      Count(IIf(Pain_Complic_Nausea_1,True,Null))**
Pain_Complic_Vomiting*               Long*      Count(IIf(Pain_Complic_Vomiting_1,True,Null))**
Pain_Complic_InabilityToVoid*        Long*      Count(IIf(Pain_Complic_InabilityToVoid_1,True,Null))**
Pain_Complic_Bleeding*              Long*      Count(IIf(Pain_Complic_Bleeding_1,True,Null))**
Pain_Complic_InstabVitalSigns*       Long*      Count(IIf(Pain_Complic_InstabVitalSigns_1,True,Null))**
Pain_Complic_LevelOfConscChanges*    Long*      Count(IIf(Pain_Complic_LevelOfConscChanges_1,True,Null))**
Pain_Complic_RespirProblems*         Long*      Count(IIf(Pain_Complic_RespirProblems_1,True,Null))**

;-----
;Pain Control Methods (MEDREC)

```



```

Pain_Control_Meth_PainVerb* Long*
Count(IIf(Pain_Control_Meth_PainVerb_1,True,Null))**
Pain_Control_Meth_MedOrdered* Long*
Count(IIf(Pain_Control_Meth_MedOrdered_1,True,Null))**
Pain_Control_Meth_MedAdmin* Long*
Count(IIf(Pain_Control_Meth_MedAdmin_1,True,Null))**
Pain_Control_Meth_MedAdminAndRefused* Long*
Count(IIf(Pain_Control_Meth_MedAdminAndRefused_1,True,Null))**
Pain_Control_Meth_PainRelieved* Long*
Count(IIf(Pain_Control_Meth_PainRelieved_1,True,Null))**
Pain_Control_Meth_PrescrGivenOnDischarge* Long*
Count(IIf(Pain_Control_Meth_PrescrGivenOnDischarge_1,True,Null))**
Pain_Control_Meth_PainContrMethExplOnDischarge* Long*
Count(IIf(Pain_Control_Meth_PainContrMethExplOnDischarge_1,True,Null))**

;-----
;After Leaving the Surgery Center (PATINT2)
After_Leave_Surgery_Problems_Might_Have* Long*
Count(IIf(After_Leave_Surgery_Problems_Might_Have_1,True,Null))**
After_Leave_Surgery_Who_Call* Long*
Count(IIf(After_Leave_Surgery_Who_Call_1,True,Null))**
After_Leave_Surgery_Meds_To_Use* Long*
Count(IIf(After_Leave_Surgery_Meds_To_Use_1,True,Null))**
After_Leave_Surgery_Had_Appointment* Long*
Count(IIf(After_Leave_Surgery_Had_Appointment_1,True,Null))**
After_Leave_Surgery_Had_All_Info* Long*
Count(IIf(After_Leave_Surgery_Had_All_Info_1,True,Null))**

;-----
;Postoperative Complications (PATINT2)
Postop_Pat_Int_Complic_AnyProblem* Long* Count(IIf(Postop_Pat_Int_Complic_Nausea_1 OR
Postop_Pat_Int_Complic_Vomiting_1 OR Postop_Pat_Int_Complic_Fever_1 OR Postop_Pat_Int_Complic_ProblemUrine_1
OR Postop_Pat_Int_Complic_Bleeding_1 OR Postop_Pat_Int_Complic_SignsOfInf_1,True,Null))**
Postop_Pat_Int_Complic_Nausea* Long*
Count(IIf(Postop_Pat_Int_Complic_Nausea_1,True,Null))**
Postop_Pat_Int_Complic_Vomiting* Long*
Count(IIf(Postop_Pat_Int_Complic_Vomiting_1,True,Null))**
Postop_Pat_Int_Complic_Fever* Long*
Count(IIf(Postop_Pat_Int_Complic_Fever_1,True,Null))**
Postop_Pat_Int_Complic_ProblemUrine* Long*
Count(IIf(Postop_Pat_Int_Complic_ProblemUrine_1,True,Null))**
Postop_Pat_Int_Complic_Bleeding* Long*
Count(IIf(Postop_Pat_Int_Complic_Bleeding_1,True,Null))**
Postop_Pat_Int_Complic_SignsOfInf* Long*
Count(IIf(Postop_Pat_Int_Complic_SignsOfInf_1,True,Null))**

;-----
;Pain Management at Home (PATINT2)
Pain_Manag_Home_PostopPainAtHome* Long*
Count(IIf(Pain_Manag_Home_PostopPainAtHome_1,True,Null))**
Pain_Manag_Home_PostopInstrContrPain* Long*
Count(IIf(Pain_Manag_Home_PostopInstrContrPain_1,True,Null))**
Pain_Manag_Home_CmplWithInstr* Long*
Count(IIf(Pain_Manag_Home_CmplWithInstr_1,True,Null))**

;-----
;Pain Relief at Home for Patients Who Had Pain (PATINT2)
Pain_Relief_Home_Completely* Long* Count(IIf(Pain_Relief_Home_Completely_1,True,Null))**
Pain_Relief_Home_Greatly* Long* Count(IIf(Pain_Relief_Home_Greatly_1,True,Null))**
Pain_Relief_Home_Somewhat* Long* Count(IIf(Pain_Relief_Home_Somewhat_1,True,Null))**
Pain_Relief_Home_NotRelieved* Long* Count(IIf(Pain_Relief_Home_NotRelieved_1,True,Null))**

;-----
;Perceived Quality in Registr and Admission Process (PATINT2)
Perceived_Quality_Reg_And_Adms_Excellent* Long*
Count(IIf(Perceived_Quality_Reg_And_Adms_Excellent_1,True,Null))**
Perceived_Quality_Reg_And_Adms_Good* Long*
Count(IIf(Perceived_Quality_Reg_And_Adms_Good_1,True,Null))**
Perceived_Quality_Reg_And_Adms_Fair* Long*
Count(IIf(Perceived_Quality_Reg_And_Adms_Fair_1,True,Null))**
Perceived_Quality_Reg_And_Adms_Poor* Long*
Count(IIf(Perceived_Quality_Reg_And_Adms_Poor_1,True,Null))**
Perceived_Quality_Reg_And_Adms_N-A* Long* Count(IIf((Perceived_Quality_Reg_And_Adms_N-
A_1),True,Null))**

;-----
;Perceived Quality at Preadmission Testing (PATINT2)
Perceived_Quality_Preadmis_Excellent* Long*
Count(IIf(Perceived_Quality_Preadmis_Excellent_1,True,Null))**
Perceived_Quality_Preadmis_Good* Long*
Count(IIf(Perceived_Quality_Preadmis_Good_1,True,Null))**
Perceived_Quality_Preadmis_Fair* Long*
Count(IIf(Perceived_Quality_Preadmis_Fair_1,True,Null))**
Perceived_Quality_Preadmis_Poor* Long*
Count(IIf(Perceived_Quality_Preadmis_Poor_1,True,Null))**
Perceived_Quality_Preadmis_N-A* Long* Count(IIf((Perceived_Quality_Preadmis_N-
A_1),True,Null))**

;-----
;Perceived Quality in Recovery stage in the Center (PATINT2)
Perceived_Quality_Rec_Stage_Excellent* Long*
Count(IIf(Perceived_Quality_Rec_Stage_Excellent_1,True,Null))**
Perceived_Quality_Rec_Stage_Good* Long*
Count(IIf(Perceived_Quality_Rec_Stage_Good_1,True,Null))**

```

```

Perceived_Quality_Rec_Stage_Fair*      Long*
Count(IIf(Perceived_Quality_Rec_Stage_Fair_1,True,Null))**
Perceived_Quality_Rec_Stage_Poor*      Long*
Count(IIf(Perceived_Quality_Rec_Stage_Poor_1,True,Null))**
Perceived_Quality_Rec_Stage_N-A*      Long*      Count(IIf((Perceived_Quality_Rec_Stage_N-
A_1),True,Null))**

;-----
;Age distribution (MEDREC)
Age_Distrib_Avg*      Single*      Avg(IIf(AGE>0 AND AGE<120,AGE,Null))*      Age_Distrib_Tot*
Age_Distrib_0-14*      Long*      Count(IIf([Age_Distrib_0-14_1],True,Null))**
Age_Distrib_15-24*      Long*      Count(IIf([Age_Distrib_15-24_1],True,Null))**
Age_Distrib_25-34*      Long*      Count(IIf([Age_Distrib_25-34_1],True,Null))**
Age_Distrib_35-44*      Long*      Count(IIf([Age_Distrib_35-44_1],True,Null))**
Age_Distrib_45-54*      Long*      Count(IIf([Age_Distrib_45-54_1],True,Null))**
Age_Distrib_55-64*      Long*      Count(IIf([Age_Distrib_55-64_1],True,Null))**
Age_Distrib_65-74*      Long*      Count(IIf([Age_Distrib_65-74_1],True,Null))**
Age_Distrib_75-84*      Long*      Count(IIf([Age_Distrib_75-84_1],True,Null))**
Age_Distrib_85+*      Long*      Count(IIf([Age_Distrib_85+_1],True,Null))**
Age_Distrib_Tot*      Long*      Count(IIf([Age_Distrib_Tot_1],True,Null))**

;-----
;Recovery Time Distribution (MEDREC)
Rectime_Avg*      Single*      Avg(RECTIME)*      RECTIME_TOT*
RECTIME-0-30*      Long*      Count(IIf([RECTIME-0-30_1],True,Null))**
RECTIME-30-60*      Long*      Count(IIf([RECTIME-30-60_1],True,Null))**
RECTIME-60-90*      Long*      Count(IIf([RECTIME-60-90_1],True,Null))**
RECTIME-90-120*      Long*      Count(IIf([RECTIME-90-120_1],True,Null))**
RECTIME-120-150*      Long*      Count(IIf([RECTIME-120-150_1],True,Null))**
RECTIME-150-180*      Long*      Count(IIf([RECTIME-150-180_1],True,Null))**
RECTIME-180-210*      Long*      Count(IIf([RECTIME-180-210_1],True,Null))**
RECTIME-210-240*      Long*      Count(IIf([RECTIME-210-240_1],True,Null))**
RECTIME-240+*      Long*      Count(IIf([RECTIME-240+_1],True,Null))**
RECTIME_TOT*      Long*      Count(IIf([RECTIME_TOT_1],True,Null))**

;-----
;Surgery Time Distribution (MEDREC)
Surgtime_Avg*      Single*      Avg(SURGTIME)*      SURGTIME_TOT*
SURGTIME-0-30*      Long*      Count(IIf([SURGTIME-0-30_1],True,Null))**
SURGTIME-30-60*      Long*      Count(IIf([SURGTIME-30-60_1],True,Null))**
SURGTIME-60-90*      Long*      Count(IIf([SURGTIME-60-90_1],True,Null))**
SURGTIME-90-120*      Long*      Count(IIf([SURGTIME-90-120_1],True,Null))**
SURGTIME-120-150*      Long*      Count(IIf([SURGTIME-120-150_1],True,Null))**
SURGTIME-150-180*      Long*      Count(IIf([SURGTIME-150-180_1],True,Null))**
SURGTIME-180-210*      Long*      Count(IIf([SURGTIME-180-210_1],True,Null))**
SURGTIME-210-240*      Long*      Count(IIf([SURGTIME-210-240_1],True,Null))**
SURGTIME-240+*      Long*      Count(IIf([SURGTIME-240+_1],True,Null))**
SURGTIME_TOT*      Long*      Count(IIf([SURGTIME_TOT_1],True,Null))**

;-----
;Miscellaneous (PATINT2)
IntTime_Avg*      Single*      Avg(IIf(INTTIME>=1 AND INTTIME<=20,INTTIME,Null))*      TotPI*

```

**Current version of Corporate\_Members.lst file**

```
;Format:
;
;---Group's Name*Group's Username* Group's UserCode*Allow separate members to
access their reports (Yes|No)
;center1
;center2
```

```
---ASC Group*pinewood*zaa*no
aba
abh
acd
acc
abi
abj
abg
abk
```

## **Current version of new-soix.ini file**

;This file includes paths to Program folder, INI folder and Log folder.  
;Edit it and copy to %windir% directory  
;Caution: Do not put "\" at the end of folder names

### **;-----Shared parameters**

INIPath	=c:\SOIX\Soix_Report_System\INI
LogPath	=c:\SOIX\Soix_Report_System\Log
OMS2ArchiveDirectory	=c:\SOIX\Soix_Report_System\DATA\OMS2_Archive
OMS2BackupDirectory	=c:\SOIX\Soix_Report_System\DATA\OMS2_Backup
MDBFile	=c:\SOIX\Soix_Report_System\DATA\SOIX.MDB
LSTPath	=c:\SOIX\Soix_Report_System\lst
TemplateDirectory	=c:\SOIX\Soix_Report_System\TEMPLATE
UploadDirectory	=C:\SOIX\WebSites\SOIX\upload
InternetDirectory	=C:\SOIX\WebSites\SOIX\Centers
NewReportsInternetDirectory	=C:\SOIX\WebSites\SOIX\NEW

### **;-----for paper reports**

SavePathForPaperReport	=c:\SOIX\WebSites\SOIX\Paper_Reports
;Target = Web   Folder	
Target	=Folder

### **;-----New sites preparation**

NTSecDirectory	=c:\Admin_Stuff\NTSec
ApacheUsersFile	=C:\SOIX\WebSites\soix_users
ApacheGroupsFile	=C:\SOIX\WebSites\soix_groups
NewCenterTemplateFolder	
=c:\SOIX\Soix_Report_System\Template\NewCenterTemplateFolder	
PrepareUploadStuff	=Yes
PrepareDownloadStuff	=Yes
PrepareHTMLFiles	=Yes

**EXHIBIT B**

# **Social & Scientific Systems**

August 4, 1998  
Ref.: 353-98 (P98.810)

Louis F. Rossiter, Ph.D.  
President and CEO  
Chironet, LLC  
1899-A Billingsgate Circle  
Richmond, VA 23233

Dear Dr. Rossiter:

Social & Scientific Systems, Inc. (SSS), proposes to assist Chironet, LLC, in commercializing the existing Outcomes Monitoring System for Ambulatory Surgery in order to create the Surgical Outcome Information Exchange (SOIE) system. As discussed in conversations between you and Allen Kendall, we will provide advice on procuring hardware, software, and Internet connectivity; hypertext markup language (HTML) and graphics design services; computer programming; and ongoing technical support.

We understand that as part of the development of new software under this contract, employees of SSS will be given access to algorithms that are the property of Chironet. We agree not to disclose these proprietary algorithms to any other party, and we agree that we will not use these algorithms in any other work without your written permission.

We have divided the work into two parts. Part I will be performed on a fixed-price basis, as described in the attached Work Statement. The total cost for Part I is \$21,000; it will be completed within 4 months of the effective date of this contract. SSS will bill Chironet \$5,250 at the end of each of these four months. Payment of invoices is due within 15 days of receipt.

Part II consists of ongoing technical support for a period of 8 months following the completion of Part I. We propose Part II on a time-and-materials basis with a ceiling amount of \$8,000. Chironet will be billed for the actual hours expended at the rates quoted on the attached Rate Schedule. Non-labor costs will be billed at cost plus 15%. We will submit monthly invoices for work under Part II; payment will be due within 15 days of receipt.

Our proposed project manager for this effort will be Mr. Allen Kendall. He will serve as the principal point of contact regarding technical performance. Questions regarding contract or billing issues should be directed to me.

As part of this agreement, it is understood that Chironet will not hire any SSS staff during the period of performance and for 1 year after the completion of the contract.

Louis F. Rossiter, Ph.D.

-2-

August 4, 1998

If the proposed arrangement is satisfactory, an authorized person at Chironet, should sign two copies of this agreement as indicated below and return one to me. Any changes to the terms of this contract must be agreed to in writing by both parties. This letter constitutes the entire understanding and agreement between SSS and Chironet and supersedes any prior agreements, commitments, or communications about the project.

Please do not hesitate to contact me or Allen Kendall, if you have any questions about this proposal.

Sincerely,



Mary Frances leMat  
President

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## **Statement of Work**

### **Developing the Surgical Outcome Information Exchange (SOIE)**

#### **Part I - Fixed Price Consulting**

##### **Task 1 - Consulting on Procurement**

Under this task, SSS staff will provide advice on procuring a Windows NT Server to host the SOIE, including hardware and software. SSS will also advise on procuring Internet connectivity for this system. We expect that the new system to be procured by Chironet will include NT Server, the Internet Information Server (part of NT Server), Visual Basic Professional Edition, and Access 97, and may include Excel 97 (see Task 2). This task will take approximately 2 person days of effort.

##### **Task 2 - Developing New Software**

Under this task, SSS staff will develop a replacement for the existing batch-mode processing software used in the Outcomes Monitoring System for Ambulatory Surgery. The replacement software will move newly received data to a central database and then process the stored information for each participating Ambulatory Surgical Center (ASC) in turn. Statistics will be calculated for each ASC and will be used to construct graphs comparing the ASC's performance to appropriate norms. The graphs will be embedded in HTML pages and stored on Chironet's Web Server. The statistics and graphs produced by the replacement software will be the same as those currently produced by the Outcomes Monitoring System for Ambulatory Surgery.

We will use Visual Basic for this programming and an Access 97 database. We may incorporate functionality from Excel 97 to create the graphs, depending on our analysis of the best method to use for this process. The approximate level of effort for this task is 3½ person weeks.

##### **Task 3 - Redesigning Web Pages**

Under this task, SSS will provide editing and HTML and graphics design services to redesign the Web site currently used for the Outcomes Monitoring System for Ambulatory Surgery. The redesign will focus on presenting a consistent, professional appearance. The approximate level of effort for this task is 2 person weeks.

**Total for Part I: \$21,000**

**Period of Performance: 4 months**

#### **Part II - Ongoing Technical Support**

This task will provide access to SSS staff for 8 months after the completion of Part I. Chironet will be billed for actual hours worked, up to a ceiling amount of \$8,000. Staff will be billed according to the attached Rate Schedule. Non-labor costs will be billed at cost plus 15%.



## Rate Schedule

### SSS Microcomputer Specialists and Programmers

The following labor rates are valid until October 1, 1999, at which time SSS will release a new set of rates. Non-labor expenses will be billed at cost plus 15%.

#### *Microcomputer Specialist Rates*

Sr. Microcomputer/Network Consultant	106
Microcomputer/Network Consultant	92
Sr. Microcomputer/Network Specialist	81
Microcomputer/Network Specialist	75
Microcomputer Technical Specialist	62

#### *Programmer Rates*

Sr. Systems Analyst	106
Systems Analyst	92
Sr. Programmer Analyst	81
Programmer Analyst	75
Sr. Programmer	62
Programmer/Technical Specialist	57

**EXHIBIT C**

# Social & Scientific Systems

an employee-owned company

Chironet, LLC  
1899-A Billingsgate Circle  
Richmond, Virginia 23233

Invoice No. 292-98  
November 30, 1998

## INVOICE

Contract Number	--	Letter of Agreement dated August 4, 1998
SSS Project Number	--	CNET1
Maximum Liability - Part I	--	\$21,000
Maximum Liability - Part II	--	\$8,000
Voucher Number	--	V - 1

---

For consulting services performed related to Part I of the above cited letter of agreement.  
Re: Developing the Surgical Outcome Information Exchange (SOIE)  
During the period October 15, 1998 to November 30, 1998.

*ok to pay before 11/1/99  
after 11/1/99  
7150*

Total Due \$5,250.00

Sincerely,

  
Flavia A. Threatt  
Accounting Manager

# Social & Scientific Systems

*an employee-owned company*

Chironet, LLC  
1899-A Billingsgate Circle  
Richmond, Virginia 23233

Invoice No. 323-98  
December 31, 1998

## INVOICE

Contract Number	--	Letter of Agreement dated August 4, 1998
SSS Project Number	--	CNET1
Maximum Liability - Part I	--	\$21,000
Maximum Liability - Part II	--	\$8,000
Voucher Number	--	V - 2

---

For consulting services performed related to Part I of the above cited letter of agreement.  
Re: Developing the Surgical Outcome Information Exchange (SOIE)  
During the period December 1-31 1998.

Total Due \$5,250.00

*ok vdr*

Sincerely,

*Flavia A. Threatt*

Flavia A. Threatt  
Accounting Manager

# Social & Scientific Systems

*an employee-owned company*

Chironet, LLC  
1899-A Billingsgate Circle  
Richmond, Virginia 23233

Invoice No. 6-99  
January 31, 1999

## INVOICE

Contract Number	--	Letter of Agreement dated August 4, 1998
SSS Project Number	--	CNET1
Maximum Liability - Part I	--	\$21,000
Maximum Liability - Part II	--	\$8,000
Voucher Number	--	V - 2

---

For consulting services performed related to Part I of the above cited letter of agreement.  
Re: Developing the Surgical Outcome Information Exchange (SOIE)  
During the period January 1-31, 1999.

Total Due \$5,250.00

7/50

Sincerely,



Flavia A. Threatt  
Accounting Manager

OK

# Social & Scientific Systems

an employee-owned company

Chironet, LLC  
1899-a Billingsgate Circle  
Richmond, Virginia 23233

Invoice No. 61.99  
March 31, 1999

## INVOICE

Contract Number -- Letter of Agreement dated August 4, 1998  
SSS Project Number -- CNET1  
Maximum Liability - Part I -- \$21,000 Task 1.1 - 1.2 - 1.3  
Maximum Liability - Part II -- \$8,000 Task 1.4  
Voucher Number -- V - 5

For services performed, Re: Developing the Surgical Outcome Information Exchange (SOIE)  
During the period March 1-31, 1999.

Personnel	Rate	Current Period		Cumulative	
		Hours	Cost	Hours	Cost
Task 1.1 - 1.2 - 1.3					\$21,000.00
Task 1.4					
Sr. Systems Analyst	\$106.00	4	\$424.00	4	424.00
Systems Analyst	92.00				
Sr. Programmer Analyst	81.00				
Programmer Analyst	75.00				
Sr. Programmer	62.00				
Programmer/Technical Specialist	57.00				
Total		4	\$424.00	4	\$21,424.00

TOTAL DUE \$424.00

Sincerely,



Flavia A. Threatt  
Accounting Manager

**EXHIBIT D**

## MARKETING AGREEMENT

An Agreement made and effective this 10 day of July 00 ("Effective Date"), by and between McKesson General Medical Corp., d/b/a McKessonHBOC Medical Group, with offices at 8741 Landmark Road, Richmond, Virginia 23228 and its designated affiliated companies ("McKessonHBOC Medical Group") and Surgical Outcomes and its affiliated companies, with offices at 1899-A Billingsgate Circle, Richmond, Virginia 23233-4243 ("Surgical Outcomes").

WHEREAS, McKessonHBOC Medical Group distributes medical products and equipment on a nationwide basis to over one thousand (1,000) surgery center customers of McKessonHBOC Medical Group ("Customers"); and

WHEREAS, Surgical Outcomes owns, markets, and sells software systems with outpatient surgery center benchmarking applications that help make surgery centers more efficient and cost effective and reduce the cost of healthcare as more fully described in Exhibit A attached to this Agreement ("System"); and

WHEREAS, Surgical Outcomes wishes to receive, and McKessonHBOC Medical Group is willing to provide promotion and marketing services for the System and any other products and Services of Surgical Outcomes made available to surgery centers ("Products") to Customers interested in purchasing software systems, products and services like the System and Products;

NOW, THEREFORE, McKessonHBOC Medical Group and Surgical Outcomes agree as follows:

1. **Term.** The initial term of this Agreement shall be for a period of five (5) years ("Initial Term") and shall automatically renew for successive terms of one (1) year each year thereafter.
2. **Obligations of McKessonHBOC Medical Group.** McKessonHBOC Medical Group shall serve as a broker of the System and Products to surgery centers and provide the brokerage services, as described below:
  - 2.1 **Promotional Materials.** McKessonHBOC Medical Group's sales representatives will use reasonable efforts to market the System and Products to Customers by leaving promotional materials provided by Surgical Outcomes regarding the System and Products with Customers that express an interest in a software systems, services and products like the System and Products. Surgical Outcomes represents that the System and Products are not reimbursable under any federal insurance program nor included as a cost on any Medicare cost report. McKessonHBOC Medical Group shall inform Surgical Outcomes of Customers interested in the System and/or Products.
  - 2.2 **Training Fee.** McKessonHBOC Medical Group shall waive for Surgical Outcomes McKessonHBOC Medical Group's initial training fee to surgery center vendors for the surgical account manager team launch, which is Four Thousand Dollars (\$4,000.00). The training fee for additional training sessions shall be determined by McKessonHBOC Medical Group and Surgical Outcomes at the time such sessions are scheduled.
  - 2.3 **Ongoing Customer Service.** McKessonHBOC Medical Group shall contact on a regular basis, at least annually, each Customer that obtained the System in part due to any sales activity directly or indirectly provided by McKessonHBOC Medical Group. McKessonHBOC Medical Group shall use its reasonable efforts to have such contact with such Customer's



principal administrator of such System. Such contact shall include the administration of a customer-satisfaction questionnaire and other such other customer service normally provided by McKessonHBOC Medical Group sales representatives to Customers in the course of marketing and customer retention.

3. **Obligations of Surgical Outcomes.** When Customers are identified by McKessonHBOC Medical Group, Surgical Outcomes shall promote and, if necessary, demonstrate the System in such a manner as in Surgical Outcomes's judgment is economically feasible to such Customers.

3.1 **Prices.** The price for a System offered to a Customer by Surgical Outcomes shall be as low as or lower than the price offered by Surgical Outcomes for a similar system to any surgery center customer of a size similar to that of such Customer. The per unit price for the System offered to a Customer that purchases more than one System shall be as low as or lower than the per unit price offered by Surgical Outcomes to any surgery center customer that purchases (or commits to purchase) the System in quantities comparable to the quantities purchased by such Customer.

3.1.1 **Billing.** Surgical Outcomes shall bill customers for any System or Product purchased by such Customers and collect any associated amounts due. McKessonHBOC Medical Group shall have no obligation for any amounts any Customer may owe Surgical Outcomes.

3.2 **Promotional Fee.**

3.2.1 **Sales and Fees.** Each quarter, Surgical Outcomes shall pay to McKessonHBOC Medical Group a promotional fee equal to twenty-five percent (25%) of all revenues received by Surgical Outcomes from each Customer for any System and/or any Product.

3.2.2 **Payment.** Such promotional fee payments on amounts received by Surgical Outcomes in a calendar quarter shall be made by Surgical Outcomes to McKessonHBOC Medical Group by the fifteenth day of the following the end of the calendar quarter. The frequency of payments may be changed from quarterly to monthly payments when such promotional fees exceed Five Thousand Dollars (\$5,000.00) per quarter.

3.3 **Promotional and Marketing Materials.**

3.3.1 Surgical Outcomes shall provide to McKessonHBOC Medical Group for its promotional use adequate marketing, advertising, and product literature relating to the System and Products. This literature is subject to McKessonHBOC Medical Group's prior approval, which shall not be unreasonably withheld.

3.4 **Exclusivity.** While this Agreement is in effect Surgical Outcomes shall not knowingly make the System or any Product available for brokerage, supply, distribution, or marketing directly or indirectly to, or conduct any promotional activity with, any company that competes with McKessonHBOC Medical Group, including, without limitation, Allegiance Healthcare Corporation, Owens & Minor, Neoforma.com, Cardinal Health Care, Physician Sales and Service, Gulf South and Bergen Brunswick ("Competitor"). Notwithstanding the commitment in this Subsection 3.4 above, Surgical Outcomes shall have the right to interface its data entry elements to system solution providers, such as Temple Surgery Systems and Surgery Center Information Systems, Inc.

- 3.5 **Web Links.** Surgical Outcomes shall permit McKessonHBOC Medical Group to link its web sites to Surgical Outcomes web sites. Surgical Outcomes shall not permit any Competitor to link to any of its web sites.
- 3.6 **Sustaining Member.** During the term of this Agreement, Surgical Outcomes shall list McKessonHBOC Medical Group as a sustaining member.
- 4. **Confidentiality Obligations.** Any disclosures made by a party ("Disclosing Party") to the other ("Receiving Party") concerning any information regarding the Disclosing Party's customers, including, without limitation, such customer's names and addresses, and/or any other information which the Disclosing Party specifically identifies as being confidential at the time of disclosure ("Information") shall be held in confidence by the Receiving Party and not disclosed by the Receiving Party to any third party nor used by the Receiving Party to the Receiving Party's advantage, except as contemplated herein, without the prior express written consent of the Disclosing Party. Any list of Customers shall be deemed Confidential to McKessonHBOC Medical Group.
  - 4.1 **Precautions.** The Receiving Party will take all reasonable precautions, including adequate procedures and disciplines, to safeguard the confidential nature of such Information. The Disclosing Party agrees that the same procedures which the Receiving Party would use to protect its own confidential and proprietary Information shall be deemed adequate to satisfy its obligation of confidentiality hereunder.
  - 4.2 **Exceptions.** The Receiving Party's obligation to maintain the Information disclosed in confidence hereunder shall not apply if the Information is known to the Receiving Party when received or is approved for release in writing by the Disclosing Party. The burden of proving the applicability of any of the exceptions above shall be on the Receiving Party.
  - 4.3 **Survival.** The obligations regarding Information, described above, shall survive any cancellation or termination of this Agreement for a period of five (5) years after the effective date of such cancellation or termination.
- 5. **Contact With McKessonHBOC Medical Group's Customers.**
  - 5.1 Customers will be aware that McKessonHBOC Medical Group has referred their name to Surgical Outcomes as a sales consultant for and licensor of the System and/or Products. Surgical Outcomes acknowledges that McKessonHBOC Medical Group's business relationships with customers, including its goodwill with such customers, are valuable assets of McKessonHBOC Medical Group. Surgical Outcomes agrees that it shall not knowingly or intentionally conduct itself in a manner that will adversely affect McKessonHBOC Medical Group's relationships, including, without limitation, its goodwill, with any of McKessonHBOC Medical Group's customers.
- 6. **Indemnification.**
  - 6.1 McKessonHBOC Medical Group shall have no obligation with respect to the System or any Product, any sales, license, or other agreement arising out of Surgical Outcomes's contact with a Customer, or the performance of Surgical Outcomes or an Customer under such agreements. Surgical Outcomes shall defend, indemnify, and hold harmless

McKessonHBOC Medical Group and its affiliated and subsidiary companies, and the officers, directors, employees, and agents of each of them from and against any and all losses, damages, liabilities, or claims ("Liabilities") caused by or arising out of Surgical Outcomes' negligence or willful misconduct, the System or any Product, any related agreements entered into by Surgical Outcomes and Customers concerning the System or any Product, or the obligations assumed by Surgical Outcomes or a Customer under such agreements. This Subsection 8.1 shall not apply to Liabilities arising from incomplete, outdated, or otherwise incorrect information provided by or on behalf of McKessonHBOC Medical Group to Surgical Outcomes upon which Surgical Outcomes relies with respect to the Special Enhancements or other Surgical Outcomes products or services designed or produced based on such incomplete, outdated or incorrect information.

- 6.1.1 Surgical Outcomes shall maintain liability insurance for bodily injury and property damage, with contractual broad form vendor liability coverage extended to McKessonHBOC Medical Group and a minimum combined single limit of Five Million Dollars (\$5,000,000.00) per occurrence. Surgical Outcomes shall furnish to McKessonHBOC Medical Group a certificate of insurance evidencing such coverage, certifying that the policy or policies of insurance described in such policy will not be altered, modified or canceled without giving McKessonHBOC Medical Group at least thirty (30) days advance written notice.
- 6.2 McKessonHBOC Medical Group shall defend, indemnify, and hold harmless Surgical Outcomes and its affiliated and subsidiary companies, and the officers, directors, employees, and agents of each of them from and against any and all losses, damages, liabilities, or claims caused by or arising out of McKessonHBOC Medical Group's negligence or willful misconduct.
  - 6.2.1 McKessonHBOC Medical Group shall maintain liability insurance for bodily injury and property damage, with contractual broad form vendor liability coverage extended to Surgical Outcomes and a minimum combined single limit of Five Million Dollars (\$5,000,000) per occurrence or comparable program of self-insurance. McKessonHBOC Medical Group shall furnish to Surgical Outcomes a certificate of insurance evidencing such coverage, certifying that the policy or policies of insurance described in such policy will not be altered, modified or canceled without giving Surgical Outcomes at least thirty (30) days advance written notice.
- 7. **Termination.** This Agreement may only be terminated for cause. "Cause" exists if the other party (i) shall be insolvent or unable to pay its debt as they come due; or (ii) has a bankruptcy, insolvency, reorganization, debt adjustment, liquidation, or receivership proceeding instituted by or against it; or (iii) breaches any material term of this Agreement; or (iv) defaults in payment or is consistently late in payment of any monies due; or a party acquires, merges or is acquired by a direct competitor of the other party. Cure for any cause may be effected during the period of notice.
- 8. **Miscellaneous.**
  - 8.1 **Binding Effect.** This Agreement shall be binding upon the parties to this Agreement individually, their successors and assigns.
  - 8.2 **Governing Law.** This Agreement shall be deemed to be made in the Commonwealth of Virginia and shall in all respects be interpreted, construed, and governed by and in

accordance with the laws of the Commonwealth of Virginia without any presumption or construction against the party causing the Agreement to be drafted.

- 8.3 **Counterparts.** This Agreement shall be executed simultaneously in one (1) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute and be the same instrument.
- 8.4 **Severability.** In the event any portion of this Agreement is deemed to be contrary to law, the remaining provisions of this Agreement shall continue to be valid and binding upon all parties.
- 8.5 **Independent Contractors.** The relationship between the parties to this Agreement shall be that of independent contractors. Under no circumstances shall either party to this Agreement act or attempt to act, or represent itself, directly or indirectly, as an agent of the other party to this Agreement, except as expressly contemplated herein.
- 8.6 **Disclaimer.** IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR INCIDENTAL, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS) FROM ANY CAUSE.
- 8.7 **Exhibits.** The following exhibits are attached to this Agreement and all exhibits are hereby incorporated herein and made a part of this Agreement:

Exhibit A - The System

9. **Entire Agreement.** This Agreement merges or cancels all prior negotiations, understandings or agreements between the parties, oral or written, and constitutes the entire Agreement of the parties with respect to the subject matter of this Agreement.

IN WITNESS WHEREOF, the parties hereto have signed and dated this Agreement in the spaces provided below.

MCKESSON GENERAL MEDICAL CORP.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

SURGICAL OUTCOMES

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A**

**SYSTEM DESCRIPTION**  
(Attach Description)

The company's Outcomes Monitoring System ("System") for ambulatory surgery centers is a software system that enters, uploads and stores patient information submitted over the Internet from local freestanding (non-hospital based) ambulatory surgery centers. Submitted patient information is stripped of any personal identifying information, yet the system allows the local freestanding surgery center to identify their own patients. The data is processed to create graphical and tabular reports. Averages and other performance statistics are calculated yielding an industry standard. Graphic and tabular performance comparison reports are posted on the Internet. Users are given a unique passcode to access only their own performance reports over the Internet.

**EXHIBIT E**

Chironet, LLC

1899-A Billingsgate Circle, Richmond, VA 23233-4243

September 24, 2000

Allen Kendall  
Vice President  
Social & Scientific Systems, Inc.  
7101 Wisconsin Avenue, Suite 1300  
Bethesda, MD 20814-4805

Dear Allen:

Thank you for looking at our final documentation. I was hoping you could provide a letter with a frank critique of the documentation and suggestions for improvement. We certainly appreciate your hard work on our project and thank you for doing this final task.

Sincerely,

A handwritten signature in black ink, appearing to be 'Lou' or 'Rossiter', written in a cursive style.

Louis F. Rossiter, Ph.D.

Enclosures



**EXHIBIT F**



## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/252,129	11/21/2000		75	58367.000002			

21967  
HUNTON AND WILLIAMS  
1900 K STREET N W  
WASHINGTON, DC 20006

DOCKETED

ACF

CONFIRMATION NO. 8842

## FILING RECEIPT



\*OC000000005733952\*

Date Mailed: 06/08/2001

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Vladislav Olchanski, Richmond, VA;  
Viktor E. Bovbjerg, Richmond, VA;  
Stephen E. Zimberg, Plantation, FL;  
Louis F. Rossiter, Richmond, VA;  
Vadim Polyakov, Richmond, VA;  
Jennifer S. Green, Richmond, VA;

If Required, Foreign Filing License Granted 02/04/2001

Projected Publication Date: N/A

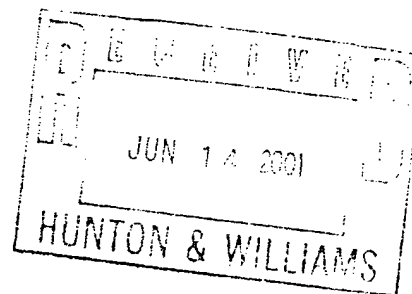
Non-Publication Request: No

Early Publication Request: No

\*\* SMALL ENTITY \*\*

## Title

Medical benchmarking technique



Data entry by : DURHAM, DESHAWN

Team : OIPE

Date: 06/08/2001



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Title 37, Code of Federal Regulations, 5.11 & 5.15**

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This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

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- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 500 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
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**EXHIBIT G**



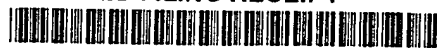
UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/996,475	11/20/2001	2152	564	58367.000003	23	25	5

CONFIRMATION NO. 2706

UPDATED FILING RECEIPT



\*OC000000007696775\*

Thomas E. Anderson, Esq.  
Hunton & Williams  
1900 K Street, N.W.  
Washington, DC 20006-1109

Date Mailed: 03/25/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

- ✓Vladislav Olchanski, Richmond, VA;
- ✓Viktor E. Bovbjerg, Richmond, VA;
- ✓Stephen E. Zimberg, Weston, FL;
- ✓Louis F. Rossiter, Richmond, VA;
- ✓Vadim Polyakov, Richmond, VA;
- ✓Jennifer S. Green, Lynchburg, VA;

Domestic Priority data as claimed by applicant

THIS APPLN CLAIMS BENEFIT OF 60/252,129 11/21/2000

Foreign Applications

If Required, Foreign Filing License Granted 01/03/2002

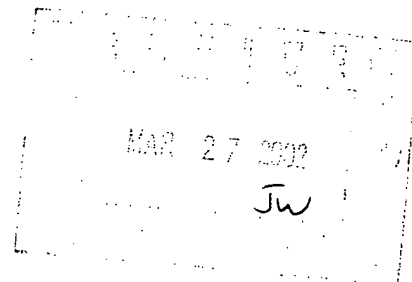
Projected Publication Date: 06/27/2002

Non-Publication Request: No

Early Publication Request: No

\*\* SMALL ENTITY \*\*

REVIEWED



Title

✓Performance outcomes benchmarking

Preliminary Class  
709

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Title 37, Code of Federal Regulations, 5.11 & 5.15**

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